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ORIGINAL DEPARTMENT.

LECTURE.

MEMBRANOUS CROUP AND LARYNGEAL DIPHTHERIA.

Delivered at the Medico-Chirurgical College, Philadelphia,

BY HUGO ENGEL, A.M., M.D.,

Professor of the Principles and Practice of Medicine and of Clinical Medicine, etc., etc.

GENTLEMEN:—It is really remarkable that, notwithstanding many eminent authorities have proven, over and over again, that membranous croup and laryngeal diphtheria are two totally different diseases, utterly distinct from each other, there are still many physicians who believe in the identity of the two maladies. Only a week ago, one of our oldest medical journals,* enjoying a very large circulation, published a communication intended to show that the two diseases are one and the same. Regarding treatment, and especially prophylaxis, however, it is of the greatest importance to distinguish between both maladies, and I shall endeavor, in the following, to point out to you the differences existing between them, and I hope to be able to convince you that they are not identical affections.

What is membranous croup, how does it begin, what is its cause, its pathology? First, it is a disease met with in childhood only. The child, after having been exposed to a cold draught, or after having taken cold in some other manner, goes to bed well and apparently in perfect health. About midnight it suddenly awakes with a hoarse cough, sounding like the barking of a dog, with difficulty of breathing, a hoarse voice, high fever and a rapid pulse. After a few such seizures the child falls asleep again, but the fever continues. The next day the child's voice is still hoarse, it still has fever and some dyspnœa, and occasionally the "croupy" cough, but it plays, and excepting the affection of the larynx and the symptoms mentioned, nothing seems to ail it. When you now look at the parts at the back of the buccal cavity, the tonsil, soft palate and pharynx, you may find them a little red, but nothing more. If you have an opportunity of inspecting the larynx, you will see its whole mucous membrane inflamed and swollen, especially that of the true vocal cords. The next night the child becomes decidedly worse. The spasmodic seizures of coughing and of alarming dyspnœa appear more and more frequently, the voice or cry gets hoarser, and the difficulty in breathing greater and more continuous, while the fever does not abate. Inspecting now the pharynx and neighboring parts, you see nothing more than at first, but in the larynx you observe a grayish-white membrane lining the infiltrated and inflamed mucous and submucous tissues. The child is still strong, fighting, as it were, against the disease, and may now get well if, by vomiting, the false membranes are expectorated, and no new formation of them takes place. In such a case, the voice gradually regains its clear sound, the cough becomes moist and loses its barking character, the difficulty in respiration and the fever leave, and within a day or two the child is *totally* well, never under any circumstances suffering from any sequelæ whatever. But if the case takes an unfavorable turn, the voice soon becomes whispering, the cough spells gradually cease, the dyspnœa changes into apnœa, and the at first bluish, later pale appearance of the

* MEDICAL AND SURGICAL REPORTER, December 3d, 1881, page 631.

face, with its expression of terror; the blue lips and the pitiful, but fruitless endeavor of the poor sufferer, to inhale air; the longing of the system for oxygen, precede the terrible closure of the sad scene—the fearful struggle for life—the death by suffocation. Happily death soon sets in; poisoning of the blood from accumulation of carbonic acid, or rather from want of oxygen in the blood, produces early total insensibility, so that the suffering is felt less by the doomed child, which dies in coma. During the last twenty-four or thirty-six hours you may observe, when then examining the throat, an extension of the false membrane, from the larynx upward into the pharynx. And you will further notice, that the child's strength commences to give away then only, when the repeated attacks of vomiting, or at last the want of oxygen in the system, have undermined its vitality. Towards the end of the malady, when death is near, you will detect albumen in the urine, not, however, till the dyspnœa has become greater and constant. (A similar albuminuria is met with in all diseases in which great difficulty of breathing forms one of the main symptoms, as, for instance, in pneumonia, in asthmatic seizures, etc.) But there is no enlargement of glands, and no complication whatever makes its appearance.

In some cases, especially in somewhat older children, of about four or five years of age, the beginning of the disease is sometimes in so far slightly different, as a common bronchial catarrh may, for a few days, precede the outbreak of membranous croup; otherwise the course of the malady is as described.

Let me now, gentlemen, draw before your mental eyes a picture of an attack of laryngeal diphtheria, and for the sake of better comparison, as we see it in children, though adults also may be affected by it. At first you will find that diphtheria is either endemic or epidemic at the place, or you have the fetid odor of badly smelling water closets pervading the house, or the child had been visiting, within the week preceding its illness, a locality where the contagion existed. The first symptoms the little patient generally gives of being sick are: the child loses its appetite, has a moderate fever, and complains of pain when swallowing. It ceases playing almost from the very beginning, drops its head, and shows other signs of weakness by complaining of feeling tired, by not wanting to walk and preferring to lie down. If you now examine the child you will find, on each side, the glands under the angle of the lower jaw swollen, generally on one side much more than on the other, and on inspecting the parts you will notice a patch of false membrane over one or both tonsils, or over a part of the posterior wall of the pharynx, or over the soft palate, extending sometimes along the roof of the mouth. The child has an utter disgust for food, there is a bad odor of the breath, a moderate fever, and a remarkable weakness. If the glands are enlarged on one side specially, you will observe the deposit of false membrane on that side of the throat. On removal of the membrane, you will see below it the healthy mucosa. After the child has been ailing this way from three to five days, getting weaker from day to day, and beginning, perhaps, already to show evidences of septicæmia, it commences to cough. This may happen any time of the day or night, mostly toward morning. The cough has a croupy sound, and the voice becomes hoarse. If you now look at the throat and the larynx you will observe that the false membranes have extended from the tonsils or pharynx down over the epiglottis into the larynx. From the moment of the further extension of the false membranes—they may now spread upward over the posterior nares, or downward into the larynx—you will detect, on examining the urine, that it contains albumen, as it does in every grave case of diphtheria. The albumen does not wait with its appearance till great dyspnœa sets in, as is the case in membranous croup, but is present from the moment the diphtheria takes on a grave aspect. The case of the child with laryngeal diphtheria progresses now, as far as laryngeal symptoms are concerned, the same way as membranous croup, only you can notice the child fighting less against the disease; it gets weaker and weaker, and you observe, clearly, that there is another factor evidently, besides the threatening suffocation, producing the fatal end, and that is blood poisoning. And it frequently happens that the child dies at the very onset of the laryngeal symptoms, death often taking place long before the accumulation of false membranes had been sufficient to induce death by closure of the glottis, by suffocation. Sometimes endocarditis sets in, hastening the fatal end, or what also never is observed in membranous croup, the membranes extend upward over the Schneiderian mucous membrane of the nose. In case the child gets well, the symptoms do not rapidly cease with the expulsion of the membranes from the larynx. No, the child only very gradually regains its strength, and convalescence lasts at least two weeks or longer. Frequently, some days after the disease is apparently over, the mother suddenly observes that the child, when drinking

water, cannot swallow, and that the fluid returns by the nose again; paralysis of the soft palate has set in, and this is always followed by other local, or by general paralysis, sequelæ which never appear in membranous croup.

From the description I have given you of the two diseases, you will have observed that the following differential points clearly distinguish membranous croup from laryngeal diphtheria. For their better contrast, I have written this table on the blackboard, showing the differences mentioned:—

Membranous Croup.	*Laryngeal Diphtheria.*
Is due to exposure to cold.	Due to a specific poison.
No period of incubation.	Period of incubation 1 to 5 days.
Is a local disease, consisting of an inflammation of the mucous membrane of the larynx with exudation of false membranes.	Is a constitutional disease, where bacteriæ are deposited and form false membranes on the mucous membrane of the larynx.
The false membranes, beginning in the larynx, may extend from there to the pharynx.	The false membranes exist at the beginning of the disease in the pharynx, and extend from there down to the larynx, and frequently up into the nose.
Affects children only.	Attacks adults also.
Begins mostly suddenly, at midnight, with croupy cough, etc.	The child has been ailing 3 to 5 days before croupy symptoms appear.
The child loses its strength only after frequent vomiting and towards close of the disease.	The child becomes weak from the very beginning, and loses strength rapidly, even before appearance of croupy symptoms.
Never any constitutional symptoms except high fever (symptomatic of the violent larynx inflammation) and near death, symptoms due to want of oxygen.	Constitutional symptoms from very beginning, moderate fever long before laryngeal symptoms, and child dies often from septicæmia before death by suffocation sets in.
Never any complications.	Often nasal diphtheria, sometimes endocarditis, always septicæmia.
Albumen in the urine only after dyspnœa has become great.	Albumen in the urine from the very beginning of graver symptoms.
Never enlargement of glands.	Enlargement of glands from very beginning, and never absent.
Never contagious.	Very contagious.
Never followed by any sequelæ.	Frequently followed by local and general paralysis.
Rapid convalescence.	Very slow and tedious convalescence.
False membranes soluble in potash solution, hardening in sulphuric acid.	False membranes soluble in sulphuric acid, hardening in potash solution.
Membranes consisting of new formation of cells.	Membranes consisting of masses of bacteriæ and cells.

Gentlemen, these differences are not the result of artificial work, but they appear in every case of either disease, and are taken from nature; and I hope that I have convinced you that membranous croup and laryngeal diphtheria are by no means identical, but totally different diseases, distinct from each other. And let me impress upon you once more the fact, that while the former is a local, the latter is a constitutional, infectious, contagious disease.

COMMUNICATIONS.

THE RATIONAL TREATMENT OF BLENNORRHŒA.

BY GEORGE H. PICARD, A.M., M.D.,
Of Topeka, Kansas.

In those cases of long continued and persistent gleet occurring as sequences of blennorrhagia, or any other acute urethral irritation, depending upon a structural alteration of some portion of the urethral lining, the surgeon is not unfrequently humbled; indeed, it is proper that a certain degree of humility should attend the undertaking of one of these cases, which has most likely been a *bête noir* to many an unsuccessful *confrère*.

The pathology of the disorder is confessedly obscure. Some radical surgeons teach that every gleet depends upon a stricture more or less developed; it may be so slight as to have escaped observation. Such gleets are undoubtedly common enough, as is shown by their gradual disappearance during dilatation. It will be found, however, that a large proportion of gleets do not yield to dilatation or mechanical compression. In these muculent fluxes there seems to exist a condition analogous to the chronic and passive congestion of the gynecological phenomenon known as hyperplasia. The lesion, which consists essentially of structural change, is situated in the prostatic urethra, and if undisturbed, is likely to involve the prostate gland and even the vesiculæ seminales.

For my part, I confess that I am unable to differentiate—without historical aid—between the fluxes which accompany the hyperæsthetic state of the urethral lining in masturbation and excessive venery, and the phenomenon known

as ordinary gleet. The microscopic appearance is identical, excepting, perhaps, a greater evidence of ulceration in the gleety discharge; in advanced gleet there is the same presence of scaly epithelium and prostatic cylinders, showing hypersecretion of the glandular surface.

It seems to me that there exists no important difference in the etiology of these fluxes; the chronic discharge of blennorrhœa is caused by the injury done the mucous membrane by the intense irritation of blennorrhagia, rather than any specific violence inflicted by the virus; the fluxes of masturbation and imaginary spermatorrhœa are the result of habitual genital excitement.

If the pathology of these phenomena is identical, it would follow that the same treatment would be successful in both forms. This conclusion would be rational were it not for the fact that in masturbation the continuation of the habit affords a constant supply of fresh irritation, a condition which obviously does not obtain in blennorrhœa. If, then, the surgeon could be assured of the absolute reform of his patient, he might proceed accordingly.

I believe that more cases of obstinate and long-continued gleet have been cured by Lallemand's method than by any other means; yet the procedure is a severe one and by no means devoid of hazard. There is no especial use in disguising the fact that modern conservative surgery looks unkindly upon the employment of the caustic.

Some months ago, in consequence of the satisfactory results I had already obtained from the use of hot water urethral irrigation, both in prostatorrhœa and passive seminal fluxes, and also influenced by the pathological analogy existing between these disorders and blennorrhœa, I determined to employ the thermic agency in the treatment of the latter. Thus far my success has been very gratifying. *In no instance has the scheme failed to yield a radical cure.*

The plan I pursue is simplicity itself, and may be briefly described as follows: A small-sized, bulb-tipped catheter, having lateral openings, is to be inserted into the portable urethra, so that the bulbous extremity will occlude the mouth of the bladder; the free extremity of the catheter is to be connected with a rubber tube which is attached to the faucet of an elevated vessel containing the water; the water is thus, by the force of gravity, thrown into the urethra, and after being distributed over the desired surface, finds a ready egress through the ample space left in the urethra by the small catheter. No fears need be entertained that any injury will be done to the bladder; it is not likely that any water will pass the close-fitting bulb, certainly not sufficient to light up any inflammation.

To insure complete success, this treatment demands the strict observance of the same conditions that are laid down in vaginal irrigation—perseverance, frequency and conscientious regard for details. I begin with water at a temperature of 90° F., which I increase as rapidly as tolerance can be established, to 100 or even 115° F. At least two sittings of fifteen minutes each should be daily required of the patient. The temperature of the water should be maintained by frequent additions from a vessel of boiling water. If any more active stimulation is desired than is afforded by the hot water alone, or if an increased sedative or alterative action seems necessary, it may easily be obtained by medicating the water. I have found the hot water sufficiently alterative.

It may seem presumptuous for me to call this a *rational* treatment, when it is remembered that so little is yet really known of the pathology of these lesions; but I trust that I may at least seem less empirical than the advocates of nauseous anti-blennorhœtics.

In conclusion, I will add a brief record of three cases recently cured by this method:—

Case 1.—W. T., American, aged 21, first contracted blennorrhagia two years ago. I treated him for an acute orchitic testicle, and afterwards for a muculent discharge, which, in spite of my best efforts and a complete exhaustion of the conventional medical and surgical resources, persisted until six weeks ago. At last, being thoroughly disgusted with the non-efficacy of tonics, stimulants, sounding, etc., I began the hot water treatment. After two weeks the discharge disappeared, and has not returned, although four weeks have elapsed. A remarkable feature of this case is the constancy exhibited by the patient; it is easily accounted for when I confess that for three-fourths of the time he was an inmate of a charitable institution of which I have the medical charge.

Case 2.—P. M., Irish, aged 25, first contracted blennorrhagia and chancroid eighteen months ago. In due time the chancroid healed, but the flux continued. Has had the services of seven physicians during the past year, without perceptible change in the gleet. After two weeks of the hot water treatment the discharge ceased, and has not returned after four weeks.

Case 3.—T. T., American, aged 16. In spite of the tender age of this patient, he contracted blennorrhagia nearly two years ago. On account

of excessive shame, he had no treatment for the acute period, but suffered in silence until he began to be alarmed at the long duration of the discharge. I employed the hot water treatment for three weeks, and there has been no sign of a return of the difficulty for two months.

In all of these cases I used, as an adjunct, the hip bath, as hot as could be borne, but no medicine of any kind. In two other cases in which I also resorted to urethral irrigation, with perfect success, I prescribed minute doses of atropia.

SOME POINTS IN REGARD TO TROPHIC NERVE CELLS.

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Written for the MEDICAL AND SURGICAL REPORTER.

It is a fact of primary importance, that some nerve cells and muscle cells are co-related. If the muscle cells, from any cause, have no nerve cells to act on them, they will atrophy and degenerate; and if the nerve cells, from any cause, have no muscle cells to act on, they will *probably*, in time, atrophy and degenerate. These remarks are made in regard to the motor nerve cells connected by nerves with both voluntary and involuntary muscle cells. So that if we impair the function of the nerve centre of a muscle, we impair the function of that muscle; and if we impair the function of a muscle, we in a certain sense impair the function of its nerve centre. Of course, an impaired muscle, as well as an impaired nerve centre, may be repaired—to a limited extent—entirely, or not at all. The co-relation spoken of may be more regarded in the light of anatomy than physiology. But physiologically and physically, however, there is a *cor-relation* of *energy*. And there can be no doubt that the avenue of correlation is the axis-cylinder. The molecular activity of the nerve cell acts on the molecular structure of the muscle cell, and the molecular activity of the muscle cell reacts on the molecular structure of the nerve cell. The energy of the nerve cell that is transmitted along the axis-cylinder is correlated into part of the energy of the muscle cell—perhaps a very small part—and the resultant coming from the combination of nerve work and muscle work, being muscular contraction and the expression of neuro-muscular work; and the energy of the muscle that *reacts* along the axis cylinder is, as it were, correlated into a certain part of the special energy of the nerve cell, the resultant coming from the combination of muscle work and nerve work, and what we call nerve function, being really the expression of musculo-nerve work. There are two factors, and they coöperate. Instead of motion being accomplished by means of one cell, it is accomplished by the coöperation of two cells. There is, so to speak, a division of labor, a differentiation of work, and while it is admitted that the nerve cell communicates motion, a kind of liberating motion, to the muscle cell, it does not seem so clear that the muscle cell communicates any motion to nerve cell, and yet the conclusion must be reached that the muscle cell *reacts* on the nerve cell, so that there is a most intimate dynamic relation between these cells, that is, the nerve cell and the muscle cell.

This assumption is, as it were, based on the well known law of mechanics, that action and reaction are equal; and if there be no reaction of a molecular kind in the case under consideration, there is still an opportunity for such a reaction, and what is more to the point, perhaps, if the nerve cell has no muscle cell to act, its legitimate action and discharge of work cannot take place.

The health and integrity of the muscle cell, and so far its nutrition, depend on the health and integrity of the *motor* nerve cell; and the health and integrity of the *motor* nerve cell, and so far its nutrition, depend finally on the health and integrity of the muscle cell. The molecular activity of the muscle cell is thus related to the health and integrity of the nerve cell, and the molecular activity of the motor nerve cell is thus related to the health and integrity of the muscle cell.

Now, is it not true, that the muscle cell is a special—a *differentiated*—cell? Say, in a sense somewhat analogous to the fact that the liver cell is a special—a highly differentiated—cell. And can the statement be contradicted, that the liver cell is co-related to the nerve cell, and that the molecular activity of the liver cell and the nerve cell are *cor-related*? I think we need not be detained on this point. But we may add, that the special function of the liver cell and the nutrition of the liver cell are so intimately related, that they must go on together. Hence, to disturb the nerve cell, that is co-related and cor-related to the liver cell, is to disturb, not only the function, but the nutrition of the liver cell. On the other hand, to disturb the nutrition and function of the liver cell, will disturb the function and the nutrition of the co-related and correlated nerve cell. Do not diseases of the liver cause hypochondria? Do not some kinds of mental emotion cause disturbed conditions of the liver? But the liver is not

an organ for making muscular motion—it is an organ where the motions of nutrition take place. It is an organ where molecular motions do not eventuate in molar motion. Nevertheless, it is an organ that is co-related and correlated to the nervous system. Again, there are two factors, and they coöperate. The function of the liver cell is the resultant of a combination of transmitted nerve action and a certain quantum of associated liver action. The liver is a consociated and a dependent organ, having a copartnership with the nervous system; especially the ganglionic system. And if the ganglionic system had no work to perform, it would, in time, atrophy and degenerate.

If we are permitted to reason by comparing facts, and by analogy, we must come to the conclusion that other specialized cells of the body are also co-related and correlated to the nerve cells. Take, for instance, the cells of the connective tissue in various parts of the body. The connective work and the frame work performed by these cells is to some extent correlated with the nerve work of some of the nerve cells. Why should a muscle cell and a liver cell be connected dynamically with the nerve cells? And why should the connective tissue cells be cut off from any dynamic relation with nerve cells? There is no reason why in nature this should be so. There is no reason why the principle of differentiation for special work should not hold good for a dynamic relation between a connective tissue cell a nerve cell, as well as between a muscle cell and a nerve cell, and as well as between a liver cell and a nerve cell.

To be sure, the relation between a muscle cell and a nerve cell is more apparent than the relation between a liver cell and a nerve cell, and far more apparent than the relation between a connective tissue cell and a nerve cell, simply because molar motion is more tangible than molecular motion. Yet, I think the facts of nutrition as involved in molecular activities, and as dependent on the influence of nerve cells, may with some degree of success be elucidated and illustrated. I think it may be somewhat conclusively shown, that the nutrition of various parts of the body depends more or less on some of the nerve cells.

It is not to be supposed that every cell, other than a nerve cell, is directly connected with a nerve cell: It may, however, be supposed that groups of special cells are connected with special nerve cells; for instance, a nerve cell is dynamically related to a group, more or less extensive, of special cells, such as muscle cells, liver cells, or connective tissue cells. The small mass of the central part of the nervous system is in favor of this supposition. Suppose, to illustrate, we had an army with a general to every private; what would it be good for? Too many generals would be as bad as none at all; but subordinate commanders, having a group of men under each, would be useful: And this seems to be to some extent the practical relation of the nerve cells to the other special cells of the body.

As if to strengthen this view, it would appear as if the ganglion of the posterior spinal nerve root were an aggregation of nerve cells, and that these nerve cells are in co-relation, and in correlation with the ectodermic cells. At any rate the integrity of the ectodermic cells is connected with the integrity of the ganglion cells, and the integrity of the ganglion cells bears some relation, perhaps, to the integrity of the ectodermic cells to which they are anatomically related; and more than this, the sensory impressions must pass through these cells on the posterior spinal roots; and this shows that the nerve cells proper have the power of conducting impressions, and it also shows, that the function of conductivity is *complemental* to the normal nutrition of the nerve elements, just as the function of contraction is *complemental* to the normal nutrition of muscle elements. Now, the nerve cells of these spinal roots are very few, when compared with the great number of the ectodermic cells, and yet they are competent to preside over the cells of the ectoderm, although it must be admitted that each nerve fibre is co-related to a group of ectodermic cells.

At the same time, it must not be forgotten that the correlation extends to the spinal cord, where there are cells of coördination, reflexion, and conduction, as well as the cells of mechanical motion and the cells of nutrition. But it is with the cells that affect nutrition that we are at present chiefly concerned. For the existence of such cells we have already brought forward some general reasons that appear to have considerable weight. But nowadays the reasons of experiments go far in the direction of convincing men who will not listen to any other reasons. Have we any experiments in regard to the existence of nerve cells that are co related and correlated with the nutritive work of any cells of the body? I believe we have some experiments in the form of accidents that have happened to the human body. In other words, certain accidents may take the place of experiments.

The third fatal case of gunshot wound of the

spine reported on page 431 of the *Surgical History of the War of the Rebellion*, reads as follows:—Lieutenant George C—, 24 years of age, was wounded, July 9th, 1864, by a conoidal ball, which entered the anterior part of the neck, immediately to the left of the thyroid cartilage, passed through between the roots of the seventh and eighth cervical nerves, and emerged between the spinous processes of the seventh cervical and the first dorsal vertebræ, a little to the left of the neck. Simple dressings were applied. By August 4th the wounds of entrance and exit had entirely healed. *Large bed-sores had formed on the back, arms, and legs.* There was entire paralysis, with involuntary discharges of urine and fæces, and a profuse diarrhœa. The patient died from exhaustion, on August 12th, 1864, thirty-six days after the injury. The autopsy revealed a slight effusion of blood between the membranes and the cord, on the right side and external to the membranes, on the anterior part of the spinal cord. *There was no direct injury to the cord.*

I may draw attention to some significant points in regard to the case whose history I have just transcribed and paraphrased:—

(1) The most significant point is a fact that the reporter has accidentally omitted: It will be seen from the accurate description, that the ball must have destroyed the lower left sympathetic ganglion, because this ganglion lies in the path the ball followed in its passage through the neck. Of course, the function of this ganglion must have been destroyed also. But it must be kept in mind, that the lower sympathetic ganglion of the neck is organically connected with the cilio-spinal axis, whose function must have been affected by the damage done to the neighboring ganglion. And it may be remarked that this damage probably consisted in the disturbance of the correlation between the cilio-spinal axis and the lower cervical ganglion. So that we may say that the cells of the cilio-spinal axis were in a state of intense irritation.

(2) The vertebræ were not injured by the ball, and so there was no direct injury to the cord; and yet there was entire and notable paralysis, as we understand from the report, of the parts below the seat of the injury. This shows that the cord was seriously damaged, and explains the loss of voluntary motion.

(3) The nutrition was extensively disturbed, since there were bed-sores on the back, arms, and legs. Now what was the cause of this disturbance? Did it reside in the sympathetic ganglion, which was the chief structure injured? Did it reside in the cilio-spinal axis, which was indirectly injured on account of the injury to consociated nerve cells? Or, did it reside in the coordinated functions of both sets of nerve cells—the cells of the cilio-spinal axis and the cells of the lower cervical sympathetic ganglion? Without formulating an opinion on this important subject just now, let me call attention to the significant facts that voluntary motor impulses are intimately connected with the cells of the cilio-spinal axis, and that *involuntary* motor impulses are intimately connected with the cells of the sympathetic ganglion. Let me go a step further, and point out the remarkable fact, that voluntary motion and involuntary motion are practically combined in the procuring and digesting of food. Hence, the spinal and sympathetic nerve cells are consociated in the antecedent steps of nutrition. May they not be consociated in the subsequent steps of nutrition? In the metabolism of the protoplasm?

(To be Continued.)

Hospital Reports.

HOSPITAL OF ORAL SURGERY.

CLINIC OF PROF. GARRETSON.

Neuralgia.

Gentlemen:—To treat neuralgia scientifically, is to recognize that the meaning of it is pain arising out of a cause; is to make discovery of the cause and to remove it.

Case 1.—Mr. E, aged 60. The case before the class is one of peculiar interest. Six months back I diagnosed a lesion existing in the nerve canal of the lower jaw. The canal was opened and a spicula of bone discovered growing directly across it; the nerve was found jagged, tumid, and broken down in places. The general health of the patient was miserable, as the result of the pain suffered and the opiates taken to relieve the pain. The diseased nerve was thoroughly removed.

The pain is back. The patient insists that he feels it at the original seat. You think it cannot be so situated; that the perception is akin with that which feels pain in a toe that weeks before was buried with an amputated leg. Of this last I am not at all sure. I am in doubt as to whether there are not cases in which the mylo-hyoid nerve perforates the bone.

In the case of the patient before us, one thing is incontrovertible; there is pain; pain so severe that it is not to be endured. There is another fact; the lesion is associated strictly with the third division of the trifacial nerve. Considering the exhausted state of the patient, I shall this morning perform a radical operation. I propose to make a section of the nerve where it appears at the oval foramen. I shall also exsect the jaw. I combine these performances after full consideration. If, in what to-day is done for the case,

relief does not follow, it will never be brought about. I have studied the case pathologically and psychologically; I commit myself to the prognosis given.

Operation.—The operation done combined exsection, both of jaw and nerve, and was performed as follows: The patient being etherized, an incision divided the lower lip in its exact median line. Ligatures were placed about the two coronary arteries. Next, a second incision, beginning with the termination of the first, was carried along the shade line of the under surface of the jaw, extending backward and upward, until the zygoma was reached; the facial artery was here tied. A succeeding step dissected the soft parts from the face of the bone, the masseter muscle being lifted from the ramus. Free exposure thus secured, the operator proceeded to remove the bone, after a manner devised by him, of having a rim of continuity and preserving the inner layer of periosteal structure, the latter to be used in covering the seat of section.

In the bone operation the surgical engine is used, the cutting instrument being a circular saw revolved at the rate of at least ten thousand revolutions to the minute. First, an anterior cut was made, commencing from the socket of an extracted lateral incisor tooth, and extending inward to the periosteum, and downward until but a quarter of an inch remained undivided. Second a similar cut was made across the lower face of the ramus. Third, the widely separated cuts were united by means of another carried from behind forward along the base of the bone. Fourth, the section was thrown inward, and the periosteum worked off by means of a chisel-shaped knife. This completed the jaw section.

Commencing the second operation by grasping the exposed inferior maxillary nerve with the teeth of a bulldog forceps, the saw of the engine was replaced by an oblong burr, three-quarters of an inch in length by half an inch in diameter. With this burr in rapid rotation, the bed of the nerve was quickly scooped out until the exit from the posterior dental foramen was exposed. Pursuing his new method, Prof. Garretson enlarged the foramen until freely exposing the pterygoid muscle. The nerve, put on the stretch, was lifted from its bed and protected from all its immediate relations in the zygomatic fossa. The conclusion of this part of the operation consisted in passing through the enlarged foramen the blades of a pair of delicate scissors, and in nipping the nerve off just below the oval foramen.

The wound being permitted to remain exposed until a reasonable glaze was secured, the closing commenced by stitching the periosteum over the face of the cut jaw, and next, in accurately adjusting the separated lip and cheek.

So rapid was the process of cure, that the patient left Philadelphia for his home in a distant city, in just thirteen days.

No neuralgia has since troubled him.

Fistula Beneath the Chin, of Four Years' Standing.

Case 2.—The lady before you has, you see, a little sore beneath the chin, a trifle to the right of the median line; this sore has persisted, in spite of much treatment, for a period of four years.

A sore, to defy direct treatment, must have something as a support back of it. This sore, I am sure, has something back of it. I have met, in my experience, with many looking like it, but never one where a directly immediate medication applied to its face could, by any possibility, amount to anything in the way of cure. A moment and you will understand this.

The sore before us is the outlet of a fistulous track. It is not at all a thing having meaning in itself; it exists in some other thing, for which we at once proceed to make search.

With this silver probe I enter the fistula; it leads, as I presumed we would find, directly to the bone. Here we may pass to the mouth. The patient wears artificial teeth, full sets above and below. Removing the lower set there is nothing of unhealthy character to be seen.

I commit myself, gentlemen, by saying that I have never met with a fistulous sore like the one before us, where a tooth, or the root of a tooth, was not at the bottom of it. If here there is found no dental origin, I have to note my first exception.

Confident in my experience, I make a cut along the gum. I dissect the gum from the bone. Convict me, if you please, for a mistake. I confess I never exposed a healthier looking bone. I dismiss the patient that the wound may heal; you shall see the lady later.

* * * This is the patient who, as you will recognize, seemed to convict us of a mistake a few days back. To-day we are to clear up the matter. Ten years back, as I have learned, an operation was performed on this jaw by an eminent surgeon of a distant city, for cure of the condition as we here find it. The bone was exposed and scraped. The result was nil.

The patient being etherized, I make a cut along the shade-line of the neck, directly to the jaw. Let us dissect away, for a little distance from either side of the fistula, the overlying tissue. * * Here is health again, nothing but health. The facial side of this jaw bone is perfect. I will, with extreme delicacy, expose a little of the neck aspect. Here is a small hole. I stick a steel pin into it to make the location. This hole leads to the meaning of the external sore. What I shall do, is the only thing to be done. I shall follow the lead of the hole and see where it goes. Please note how I shall follow the lead. I pick up the penholder-looking instrument, which you all know as the hand-piece of our surgical engine. My assistant, as you see, has armed it with a burr. Now we will put it in motion. It appears as still as though it were lying untouched upon the table, yet at this moment the burr is making ten thousand revolutions to the minute. It is an instrument of magical delicacy. See what it can do, and how it does what it can do.

Operation.—With a few touches, as one would manage a pen, the opening was enlarged, the bone falling into a mass of carious detritus composed of the cancellated structure of the bone. The inside of the jaw, for quite an inch to either side of the hole, was completely broken down. Among the patches removed by the burr, the apex of a tooth root was found.

HOSPITAL OF THE UNIVERSITY OF PENNSYLVANIA.

CLINIC OF LOUIS A. DUHRING, M.D.,

Professor of Dermatology.

Reported by FREDERICK A. TAYLOR.

Eczema Rubrum.

CASE 1.—This case is that remarkable one of universal eczema rubrum, which has appeared on several occasions in this clinic since last spring, when it first entered the hospital. The boy, you will remember, is about eight years old, and has been afflicted since the first year of his life. The disease, as you see, covers every portion of his body, from the crown of his head to the soles of his feet, and to the ends of his fingers. He appeared before the clinic last week, at which time the treatment which he has been undergoing was somewhat modified. For the month previous he had been taking Fowler's solution of arsenic, beginning with small doses, which were gradually increased, until at one time he was taking four minims. This was finally reduced to two minims, the dose upon which he appeared to do best. At the same time he was receiving a mild external treatment, consisting of an ointment made up of equal parts of zinc oxide ointment and cosmoline.

Under this treatment he improved. Last week the arsenic was discontinued, and he was placed on cod-liver oil in increasing doses, also using the oil externally by inunction. I bring him before you to-day to show you the somewhat disappointing result. The redness, you see, has noticeably increased since last week. On the scalp and elsewhere have appeared numerous small, flat pustules. He says he does not feel so well, nor sleep so well.

This treatment, while it answers in some cases, has failed in this instance. We will return to the ointment we were using, but continue the cod-liver oil internally. We will also supplement the treatment by the use of alkaline baths. The ointment will be applied twice daily, and he will appear before you again, that you may see the result of the treatment.

CASE 2.—The patient, a young man twenty years of age, has been suffering from diffused chronic eczema rubrum for nineteen years. He has been in the hospital and under treatment for six weeks. The treatment now consists of the application of the oil of cade to the more infiltrated parts, followed by an ointment of equal parts of zinc oxide ointment and cosmoline. He is anæmic, and is taking tincture of the chloride of iron and quinia internally. He has appeared in the clinic before, and is steadily improving.

CASE 3.—The next two cases illustrate two varieties of eczema. This man presents a marked case of eczema rubrum occurring around the ankles, accompanied with excessive itching. He has been here before, but it was some time ago; dispensary patients are often exceedingly difficult to treat, on account of the irregularity of their appearance. When we saw him last, we prescribed an ointment consisting of thirty grains of calomel to the ounce of zinc oxide ointment, and the disease has improved. We will continue this treatment a week longer, when he may be able to tolerate the use of tar ointment, which will then be substituted.

Eczema Papulosum.

CASE 4.—This young woman appeared at the dispensary three days ago, with a papular eruption on the back of the neck, from the scalp to the shoulders. The skin, you see, presents a dusky reddish surface, is thickened, and is covered with small, ill-defined papules, showing plain evidence of scratching, a point to be noted in making the diagnosis. She has had the disease five months. It is clearly a case of papular eczema.

She has used a saturated solution of boracic acid for three days, which she says has stopped the itching. She will continue the use of it another week, when we will see her again and probably order an ointment of tar, a drachm to the ounce.

Eczema Squamosum.

CASE 5.—This little girl also appeared before the clinic last week. She presents patches of squamous eczema on the side of her face, and also on other parts of the body. In making the diagnosis of this disease, it is to be differentiated carefully from tinea circinata, for which it might easily be mistaken. Squamous eczema is characterized by variously sized and shaped, dry, reddish patches, which are more or less scaly. In distinguishing this disease from tinea circinata it must be remembered that eczema has no tendency to assume circular patches, while tinea circinata has. The edges of the patches of eczema rarely terminate abruptly, while those of tinea circinata generally do. Moreover, eczema tends to become chronic, while tinea runs a rapid, progressive course. In all cases an appeal to the microscope will always decide the question, by showing the presence or absence of the fungus.

As the child is of delicate constitution, spare and pale, and has been troubled with this disease for several years, a constitutional treatment was indicated, and she has consequently been put upon the syrup of the iodide of iron and cod-liver oil. Locally, a white precipitate ointment, twenty grains to the ounce, is being used.

Eczema Rubrum.

CASES 6 and 7.—Here are two middle aged women with chronic eczema rubrum on the legs and feet. The two cases are very similar in appearance. This variety of eczema is most frequently seen upon the legs, appearing in dark red, thickened patches, showing much inflammation, and accompanied with itching. In one of these women the disease also produces a great deal of pain. As she is habitually excessively constipated, she cannot hope for much improvement while that condition exists. We will give her laxative doses, of equal parts of cream of tartar and sulphur, every morning, for a week. Externally, black wash and oxide of zinc ointment have been used, and with benefit. We will now employ, instead, carbolic acid ointment, fifteen grains to the ounce, to be used thrice daily.

Tinea Versicolor.

CASE 8.—In this man you observe over the upper part of the chest a number of faint, yellowish, macular patches, some of which have run together, their surface showing slight furfuraceous desquamation, which is demonstrated by

my scraping the surface with the finger, by which powdery scales are rubbed off. On the upper part of the back the disease is even more marked. This is a typical case of the vegetable parasitic disease, tinea versicolor. The diagnosis of this disease, though very easy, often wins great credit; as for instance where the patient has been receiving treatment for the macular or pigmentary syphiloderm—a not infrequent occurrence.

For the treatment, any of the vegetable parasiticides may be employed, such as baths of potassium sulphide, about two ounces to the bath; sapo viridis, frequently rubbed into the skin; ointments or lotions containing the hyposulphite of sodium, about one drachm to the ounce of ointment or water; corrosive sublimate in the form of a lotion, containing from two to four grains to the ounce. In this case we shall employ sulphurous acid, to be used freely, as a lotion. Before applying any of these remedies, the surface of the skin should be well cleansed with soft soap and water. A cure may be confidently predicted in from three to six weeks; but as relapses are likely to occur, the treatment should be continued for some time after the disappearance of the symptoms.

Case 9.—Here is a man with a formation on the side of the upper lip, which will be very interesting to study. Its appearance, you see, greatly resembles a tubercular syphiloderm. Without history, its appearance alone would scarcely distinguish it from that disease. It appeared about a week ago, having been preceded by some disease of the face which extended from there over the upper lip. Taking hold of some of the stout hairs projecting from the surface, I find that they are very loose, and may be readily extracted without causing pain. This presents the possible error of regarding the disease as syphilitic. In the syphiloderm the hairs are not loosened, as here.

From its sudden development, the absence of the disease on any other part of the body, its first appearance on the side of the face as tinea circinata, and the loose condition of the hairs, the disease is evidently tinea sycosis, or common "barber's itch." This is a peculiar case, in the fact of its location upon the upper lip. I do not recall another case like it. The usual seat of the disease is the chin and neck.

The treatment of the disease consists in the application of strong parasiticides. The hair should be removed from the diseased surface every day. For this patient we shall use as a lotion sulphurous acid in its full strength, three times a day, after which an ointment of the hyposulphite of sodium, two drachms to the ounce, will be rubbed in thoroughly. Our treatment will require two or three months to effect a cure. In the meantime the patient must be warned in regard to the contagiousness of the disease.

Psoriasis.

Case 10.—In the next case, you notice, as the man exposes his arms, that they are nearly completely covered with bright red, coin-sized, rounded, inflammatory patches, some of them running together, covered with large whitish scales. On his legs, as you observe, the disease is even more severe; but the brownish scales which cover the lesions here are not produced by the disease itself, being doubtless due to some ointment which he has been applying. On the body you see the lesions which have most recently appeared; these, you notice, are small, reddish, scaly spots, the scales being distinctly silvery in appearance. It is a typical case of psoriasis. The disease generally appears symmetrically. Since psoriasis sometimes bears a close resemblance to the papulo-squamous syphiloderm, this symmetrical appearance is an important point in making the differential diagnosis; the lesions of the latter disease seldom showing the same tendency to this arrangement.

The case before us is a very acute one. The patient first noticed the disease last August, since which date it has been rapidly progressing. At the present time new lesions are coming out rapidly and abundantly, from day to day. The process is exceedingly active, and constitutes what is known as acute psoriasis. Ordinarily the disease has a much more sluggish course.

We shall advise the use of alkaline baths, and olive oil by inunction, twice a day. In an acute case, such as this, no tar should be used. He will also be ordered to take ten or fifteen minims of the liquor potassæ, well diluted, three times daily, after meals.

Ulcerating Tubercular Syphiloderm.

Case 11.—On this woman's leg and ankle you notice pigmented spots and scars, the results of former ulcerative lesions. Here and there are a few recent ulcers, the size of small coins. The disease is the ulcerative tubercular syphiloderm. The patient, a married woman, forty years of age, has been under my observation for about two years. Mercury and iodide of potassium have been used in various doses. For some time she has been taking iodide of potassium in ten-grain doses, and the biniodide of mercury in one-sixteenth grain doses. This does not serve completely to control the disease. It is often found that when these drugs have been administered together for some time without success, great benefit may be obtained by the use of the iodide of potassium alone, in full doses, from ten to thirty grains. This plan will now be adopted here. There is an interesting fact in the history of this case, to which I wish to call your attention, namely, that six months ago the patient bore a child, which was perfectly healthy and remains so to this day, having never exhibited any syphilitic indication. The anti-syphilitic treatment to which the woman has been subjected for the past two years has doubtless had an effect on the child *in utero*.

Medical Societies.

RHODE ISLAND STATE MEDICAL SOCIETY.

The Annual Meeting of this Society was held in Providence, in December. Dr. C. V. Chapin read a paper on

Malarial Fever,

its cause, effects, and treatment. Dr. Chapin said that the recent appearance of this form of disease among us has given rise to the inquiry as to whether it has at any previous period of our his-

tory been prevalent in New England. Oliver Wendell Holmes, in 1836, said, in an essay, that intermittent fever existed in this section to a moderate extent until the early part of the present century. It occurred, at the time of the Revolution, in Providence, Cranston, and South Kingstown, while other parts of the State escaped. Dr. Mauran, in his early practice, is said to have met with cases of the fever in the north part of this town, and Dr. Usher Parsons knew of cases near a dam which had been built across the Moshassuck river; but for the last fifty years Rhode Island, together with the most of New England, has had complete immunity. About twenty-five years ago, however, malarial disease began to spread eastward from the Hudson, and crept slowly along the coast of Connecticut. In this way the Connecticut and the Thames valleys, as well as those of smaller streams, have become very malarious. New London was visited by the disease in 1878, and Rhode Island was prophesied as the next to suffer.

In 1880 a case appeared at Nayatt, and many others were soon after reported. A few cases also appeared in Providence, all in the vicinity of Mashapang pond. During the past summer a very large number of cases appeared. Of seventy-four physicians, thirty-one reported having cases under treatment, some having a large number of cases; in all about 300 cases were reported. Of these about 187, or 60 per cent., were within half a mile of Mashapang pond; 26 were near the Orient mill, and 8 near the Red bridge; 79 were scattered all over the city. Not a single death occurred within the city limits. The record is very imperfect, and there were probably many more cases which were not reported. Various theories have been advanced, but now the bacterian germs of our enthusiastic German friends are made to bear the blame. The theory of meteorological influences has been dispelled by actual experience.

The disease is often extremely local, and seems capable of being transmitted to a distance by wind or water, the direction often being varied by natural objects, such as trees and hills. Some attribute its existence to electrical disturbances, and others to an excess of ozone. As before mentioned, the fact that these diseases often are such very local endemics would seem to establish this; and additional facts, that the same seems transportable, that the disease has a period of incubation, and that it yields to a specific remedy, is enough to establish without question that malarial affections are caused by some ponderable specific poison.

The Doctor then gave an extended account of several experiments looking to the artificial transmission of the fever to the lower members of the animal kingdom, by injections of swamp water impregnated with bacteria. Also the conditions of the locality conducive to the generation of malarial influences. He closed with a recommendation that the health authorities of the city effect the drainage of the Mashapang pond district, or so arrange that the low-lying districts be permanently covered with water.

THE DISCUSSION.

Dr. H. G. Miller reported several cases of ulceration of the eye, resulting from malarial poison, all of which, after continued treatment, recovered with but little permanent damage to the organ.

Dr. Remmick, whose practice is in Elmwood chiefly, referred to the number of pronounced cases of chills and fever in that vicinity.

Dr. Wm. Shaw Bowen, of this city, reported a unique case of paralysis of the adductor muscles of the larynx, causing complete loss of the voice, that was undoubtedly the result of malaria. The patient had been suffering from chills for some time previous. The voice was recovered after continued treatment with quinine and salicylic acid.

Dr. Batchelder, of Arlington, described his remarkable experience with the results of malaria in his vicinity. He has treated nearly 200 cases of well-marked chills and fever, nearly all of which were on the low ground at the foot of Arlington heights. He combated the theory of the unhealthiness of Mashapang pond, thinking it a libel on that well-known place, but admitted Spectacle pond to be partially surrounded by low, swampy ground, that may produce the disease. Dr. Batchelder's remarks were very interesting, and his experience with the disease has been very great.

Several other papers were read, among them being one by Dr. Geo. A. Brug, reporting a case of unusual tolerance of sulphate of morphine. The patient had used morphine for fourteen years, taking it first for relief from pain. Of late she had taken as high as 80 grains between two and five o'clock, P.M. She is now out of danger.

EDITORIAL DEPARTMENT.

PERISCOPE.

Progressive Atrophy of the Skin.

The *Progrès Médical* (Oct. 29th, 1881) reports that in a clinical lecture, published in *il Morgagni*, Mr. Cantani called attention to a cutaneous lesion for which he could find no analogy in medical literature, and which he designated under the name of *Progressive Atrophy of the Skin.* The case was that of a youth of 20 years, strong, tall, and of good general health, without any nervous or syphilitic history, and who had never indulged in excess of any kind. His attention was first attracted by an enlargement of the right testicle, which, however, gave him no pain, except when horseback riding. A few months later, he noticed the appearance of streaks (vergetures) on the abdomen and over the right inguinal region. These wrinkles or streaks gradually extended up and down, until, at the end of a year, they appeared over the

whole anterior surface of the abdomen, below the umbilicus, and over all the anterior face of the thighs and knees; they also spread over the popliteal regions, and over the lumbar region, where they formed a broad belt; they also appeared at the angle of the right scapula, and over and around the upper part of the arms. Those streaks greatly resembled those produced by an exaggerated distention of the skin; they were not entirely white, but had a bluish red cast. Over some parts where these streaks did not show themselves the skin had a varicose appearance. Prior to this alteration of the skin, the patient had not lost flesh; but after its appearance, the upper portion of his body, the thorax, neck, and face grew stout, while the lower extremities suffered loss.

He also complained of weakness, and when examined he had not had an erection for over two months. Sensibility in all its forms had remained normal. The scrotum showed peculiar conditions: To the left, a varicocele had developed, and the testicle on that side was atrophied; the right testicle also showed signs of approaching atrophy.

The origin of those streaks cannot be attributed to any great distention of the skin preceding a rapid falling away in flesh, because the patient was never obese, and the emaciation of the lower extremities was not very marked; besides, similar streaks appeared over the upper part of the body, where the skin had undergone quite the opposite process. Mr. Cantani compared these lesions to progressive muscular atrophy, and connected them with an analogous medullary lesion.

Mr. Charcot called attention to the following two cases observed at the Salpêtriére, and which bear some analogy to the preceding case.

Case 1.—X., thirty years old, an engineer by trade, and of very excitable disposition, had always, until lately, enjoyed good health; he was in fair flesh, and had not lost in weight. Within the last two or three months he had difficulty in walking; his legs were weak, and he could hardly bring his thighs together; it seemed as if there existed, on both sides, some contraction of the glutei medius and minimus. The lower limbs showed some emaciation, but electrical examination revealed no signs of muscular atrophy. The tendinous reflex in all the limbs was somewhat exaggerated. There were no troubles of sensibility, nor anything particular about the genitals. While examining him, our attention was attracted by streaks having the appearance of small, elongated scars, from one to two millimetres in width. They were of a whitish hue, and around them the pigmentation of the skin was deeper; they formed a slight ridge, and, owing to this and to their color, they bore some resemblance to the cicatrices from scarified cups. Those streaks were very numerous in the lumbar region; they followed a horizontal or oblique course, forming a sort of belt; others appeared, extending over the buttocks in a longitudinal direction. Some could also be seen about the groins, but here they were more faint and less numerous. The patient had always been in fair flesh, and had not noticed when these streaks first showed themselves.

Case 2.—Miss L. presented herself at the consultation on June 8th, 1881. Her troubles dated some three years back. She first experienced continuous pain on the top of the head, radiating to the right and affecting the right ear. Those pains still continued. About a year later, in 1879, pains supervened in the left instep and knee; there was some swelling, and the attending physician declared there was an effusion in the knee.

Since four or five months she had periodical attacks, which came on twice daily, at noon, and toward five o'clock in the evening. These attacks were in the form of a loud cough, resembling a bark, which repeated itself uninterruptedly during a space of from fifteen to twenty minutes. The attacks were generally preceded by a slight hysteric cough, but at times they suddenly came on with the barking cough. There were no convulsions nor fainting fits. The menses were regular.

On examination, the left ovarian region was found painful, and reduced sensibility existed on that side; there was no achromatopsy; marked hyperæsthesia existed over the nape of the neck and the dorsal region along the median line; also on the left side, around the knee, and the tibio-tarsal articulation; these articulations had, anyhow, remained painful, and the patient could only walk with great effort, and on the tip of the foot, the knee being flexed.

This young girl was in good form, had suffered no emaciation, nor had her growth been over rapid. She was accompanied by her relatives and family physician, and we had satisfactory evidence that no distention of the abdomen had ever taken place. For a year past, she had noticed that on her breasts dark lines appeared, which gradually became paler. Examination revealed the presence of radiated streaks converging toward the nipple, around which they appeared in greatest number. Some seemed of more recent date, and were brownish, or of a bluish red. These were two to three millimeters in width, while others, of a dead white, were narrower. Similar streaks appeared over the lumbar region, and the upper part of the buttocks, but none could be found over the abdomen, in the groins, or along the thighs.

The streaks noticed in both the foregoing cases are not located like those caused by a distention of the parts. As a rule, their position might lead us to suppose they were due to pressure from the clothing, or to corrugations or wrinklings of the skin, consequent on movements of the body; but this traumatic origin can only be accepted, if we admit the existence of a peculiar lack of resistance in the skin of such subjects, since like causes have not a similar effect upon the great majority of persons.

Must we here look for some peculiar trophical trouble resulting from a condition of the nervous system, or due to a coincident congenital lack of resistance on the part of the skin? This is a question which, we believe, cannot be decided by a limited number of examples, especially as the history of streaks (vergetures) in general, and in particular their pathogeny, has been but very little studied, except in cases of rapid distention, or growth.

On the Removal of Foreign Bodies from the Ear.

In a paper on this subject, published in the *Medical Record*, Dec. 10th, 1881, Dr. D. B. St. John Roosa, says:—

If you chance to be in the woods with a friend into whose ear an insect has entered, the simplest method of removing it is to pour in some water, warmed by the hand, until the insect can be dislodged. When flies and maggots gain entrance to suppurating ears, the case is one for simple treatment with the syringe, first using some agent which will kill the fly or maggot, such as carbolic acid, Labarraque's solution, or the like; after this, the stream of warm water may be employed. An attempt to remove them with the forceps only makes them more lively and increases the difficulty of their removal. Fortunately, with the advance in our knowledge as to the methods of examining and treating the ear, these cases of maggots entering a decomposing mass deep in the canal are very rare.

With regard to other foreign bodies, as peas, cherry stones, etc., he says:—

Do not be excited when a patient is brought to you who is said to have a foreign body in the ear. Never believe that there is a foreign body in the auditory canal until you have seen it with your own eyes, if you are the person who is to remove it. Take no man's, take no woman's, take no nurse's, take no person's word for this. Very bad results have occurred from the neglect of what seems to be a fundamental proposition. Ears have been syringed—much worse, have been treated with instruments; membrana tympani have been broken, ossicles have been dragged out, labyrinths have been invaded, and meningitis and death have been caused, by neglect of this simple rule. In other words, attempts have been made to remove foreign bodies from the auditory canal when there were none there.

First, then, be sure that there is a foreign body in the ear. Second, remove it by syringing, if possible. Third, wait quietly, if it is so wedged in that it cannot be removed in this manner, until you can procure competent assistance, and then proceed with care and caution, and with such instruments as your ingenuity and the ordinary instrumental collections of aural surgeons will furnish.

Self-Abortion.

The denial, by many authorities, of the possibility of a woman producing self-abortion, has induced Dr. William H. Hardison, of Richland, Ark., to give, in the Louisville *Medical News*, Dec. 10, 1881, the particulars of a few cases which will illustrate the fact that a woman can, not only produce self-abortion, but can do so scientifically. Says he:—

In the fall of 1877 I saw Effie D., eighteen years of age. Four days before my first visit she miscarried, which was followed by puerperal peritonitis, for which latter trouble I was called to see her. Her elder sister gave me the following account of the case: Out of wedlock she had become pregnant. When three months gone in pregnancy, she sought to produce abortion by the advice of an old woman, who told her to get a round stick, as large as she could introduce well into the vagina, round and smooth at one end, then introduce it, and "job" the mouth of the womb with it as hard as she could "stand" it, and to repeat the procedure three or four times a day, until the desired effect was produced. After the third day's "jobbing" she was taken with labor-pains, and within eight or ten hours abortion was completed.

The following case shows the application of scientific means to create self-abortion:—

In the spring of 1879, I was summoned by a servant girl, in great haste, to see Mrs. G., the wife of a railroad man, who she said was in a dying condition. I found the patient unconscious, and while examining for a cause of her condition, I noticed that she was having something very much like labor pains. I inquired of the servant if the patient was in the "family way," but she said she didn't know, and all I could learn from the girl was, that while in an adjoining room she heard the patient scream, and when she got to her she was in the unconscious state in which I found her. I was soon convinced, however, that my patient was having labor pains, and at once made a digital examination; and you may judge of my surprise when I found what subsequently proved to be a small, rounded piece of whalebone, ten or twelve inches in length, protruding from the vagina. Further examination revealed the smaller end lying loosely in the mouth of the womb, which was considerably dilated. I removed the whalebone, and in ten or fifteen minutes the womb expelled a fœtus of perhaps three and a half or four months. My patient soon rallied, and became very talkative and free to *explain*, after the servant girl, who was the only other person in the house, left the room. She explained as follows: Three years previously, while residing in Chicago, she went to full term in her *first* pregnancy, and the child had to be taken from her in pieces. In a year she again became pregnant, when, upon consulting her physician, the same who attended her before, he advised the propriety of an early abortion, to which she and her husband readily agreed. She was then about three months advanced, and the operation was performed by the physician introducing a long, flexible instrument (perhaps a gum elastic bougie) into the womb and leaving it there; she lying in bed from the time of its introduction until she aborted. Again becoming pregnant, having left Chicago, being about three months advanced, and fully determined on abortion, she decided to undertake the operation herself. I will say just here, that she was a woman of unusual intelligence, and knew more about herself than most women do about themselves. So she procured the piece of whalebone and prepared it very nicely; she then went to bed, and with the forefinger of the left hand found the mouth of the womb, and with her right hand succeeded, after a while, in introducing her improvised probe. In about three hours she began to feel some pain, which gradually grew worse, and the last she remembered until "all was over," was a very severe pain which seemed to extend from her womb to her head.

A very common practice among the negro

wenches of the South inducing self-abortion, is by jumping from high places, such as a fence or gatepost, to the hard ground. I believe that a very large majority of self-abortions, as well as all other superinduced abortions, are produced by the use of oxytocics, principally cotton-root and ergot. I think I am warranted in estimating the proportion of self-abortions as at least one-third of all that are superinduced.

Rotheln or German Measles.

Dr. J. W. Byers says, in the *Brit. Med. Jour.*: "There is scarcely another disease upon which the views of authors differ so vastly, as upon rubeola" (rötheln). So wrote Vogel; and although, since the time these words were penned, very great advances have been made in our knowledge of the disease, its exact nature and position among the exanthemata do not seem to be absolutely determined, as is evidenced by the fact that, in the section devoted to diseases of children, at the forthcoming International Medical Congress, one of the subjects that the committee have selected for discussion is the real position of rötheln, and its relation to scarlatina and measles.

Nothing has caused more confusion than the number of names under which the disease has been described. Thus it has been called rubeola, German measles, scarlatina morbillosa, hybrid measles, epidemic roseola, rose-rash, rötheln, etc.

Is rötheln merely a mild form of measles, or of scarlatina, or a combination of both (a sort of hybrid)? or is it a disease *sui generis*? In the *Dictionnaire Encyclopédique des Sciences Médicales*, it is described under the head *Roséole*; and the writers of the article think that those cases which have been published as cases of rötheln, are to be regarded either as measles or abnormal forms of scarlatina, or as combinations which they term rubeolo-scarlatinas (*rubéolo-scarlatines*). These writers state that cases of rötheln are exceptional in private practice, and occur only in the course of certain epidemics; and that they are but little observed except in children's hospitals, where, from the crowding together of patients suffering from the different exanthemata in different stages of their development, hybrid products arise, which are deviations from the normal type of the fevers—in fact, pathological monstrosities (*monstrosités pathologiques*).

I think there can be no doubt that many cases of rötheln are diagnosed as mild or abnormal varieties of measles or scarlatina, especially when epidemics of these fevers are prevailing. Many so-called second attacks of these diseases are probably also cases of rötheln. That, however, rötheln is a specific disease, quite distinct from either measles or scarlatina, and having definite features of its own, has long been held in Germany; and this view has been steadily gaining ground in England, where it has been supported, among others, by Aitken, Murchison, Bristowe, Liveing, Duckworth, etc. That it is quite distinct from measles and scarlatina, seems to be established, apart altogether from its own peculiarities, by the fact that a previous attack of measles or scarlatina, does not give immunity from rötheln (and this was exemplified in my case), and that having had rötheln, does not prevent one from taking measles or scarlatina.

It is only by the careful observation and reporting of cases that our knowledge of rötheln can be rendered complete; and when this is done, it is probable that rötheln will occupy a position as distinct as measles or scarlatina. These were for many years regarded merely as varieties of one and the same disease, and were only finally separated about the middle of the eighteenth century.

Examples of Chorea from Emotional Excitement.

Some interesting illustrations of chorea from this cause are given by Dr. James Russell, in the London *Medical Times and Gazette*, July 23d, 1881:—

Case 1.—A fine developed, high-spirited and passionate, but healthy girl, aged sixteen, was much frightened by a slight cut on her finger, from which much blood flowed; at the time, too, she was in a violent passion with her mother. On the same evening choreic movements came on "in the arm on the same side." In a week the leg became involved, and in a day or two the face and tongue. In the course of fourteen days the choreic movements became greatly exaggerated, and continued to augment in violence, causing general excoriation from constant friction, but without emotional development, for nine days, when she died. Her heart was found healthy, as were all the other organs.

Case 2.—This case related to a girl aged sixteen, in good health, and living under favorable conditions, passionate, but not hysterical, nor in any way nervous; the sounds of her heart pure. She was very much frightened by a fall on her left side, doubling her wrist under her. She soon recovered from the fright, and thought no more about it. Choreic movements commenced on the following day, and became very severe in four days. The disease presented its most violent form for three days, and then gradually subsided.

Case 3.—A chlorotic-looking girl, an orphan, aged nineteen, overworked and underfed, not rheumatic, was preparing to emigrate to America, her passage having been paid, when she "spent silly" some money sent over to her to defray her expenses. She was much troubled thereby, and the present illness began, and put an end to her intention of leaving the country. The movement came on gradually, increasing in severity, and at the end of a fortnight or three weeks attained great violence, which for ten days seriously threatened the patient's life, and only subsided tardily.

I may adduce in this connection two other illustrations of a large amount of energy having been released through the application of a comparatively low degree of force, when, as in chorea, the explosive material lies ready to hand, and the restraining influence by which it is normally controlled has been lowered. The incidents did not occur as a primary cause of the chorea, but produced severe aggravation of the disease. In one case a girl, aged twenty-one, had been suffering from choreic movements of a mild character for two days, when her attention was directed to her condition; she immediately

burst into tears, and from that time the movement became greatly aggravated, and speedily developed into a severe form of the disease, with much emotional development. The second instance occurred in an emotional girl who entered the hospital with mild chorea of a month's duration. Ten days afterwards she was much excited by hearing a band of music; she jumped out of bed and was worse directly; the movements became so violent that she was placed in a private ward, and it was a month before any permanent amendment was effected.

Aspiration in Hydatids of the Liver.

In a recent monograph* published in London, Dr. Balding records nine cases of hydatid disease of the liver treated by electrolysis or simple acupuncture, and all with good results. It is to be noted, however, that the tumors were all in young persons, and of small size. Also, in several of the cases, fluid evidently escaped into the peritoneum, which, in the case of purulent contents, would in all probability be fatal. He records thirty cases in which, by means of caustics or incisions, a considerable opening was maintained from the first. The results are not favorable, prolonged suppuration having generally followed, with a fatal result in ten cases. He also records a number of cases in which the cyst was punctured with a small trocar. Out of 155 cases, the fluid on the first puncture was clear in 106, thick or purulent in 49. Among the 49 cases we have 26 cures, 20 deaths, and 3 results not stated—the class in which the contents were clear thus showing 81 per cent. of cures, as against 53 per cent. where the contents were purulent. Again, of the 106 cases in which the fluid was clear at the first puncture, in 35 cases the contents subsequently became purulent, while in 71 there was no evidence that suppuration ever took place. Of these 71 cases last mentioned, there were 58 cures, 11 deaths, and 2 results not given.

The conclusions to which Dr. Balding comes, and which are fully justified by the cases, and the statistics he adduces, are as follows: 1. So soon as the tumor is actually felt, establish the diagnosis by the introduction of a fine aspirator needle. 2. Should the fluid be clear, withdraw the greater part or the whole of it, and close the wound. 3. Should the fluid be purulent, introduce a large trocar, leave the cannula *in situ*, and wash out the cavity once or twice daily, maintaining a free opening and keeping the abdomen well bandaged. Several cases recorded by Harley, belonging to this last class, did not do well till a free opening was made.

Case of Imperforate Anus.

Dr. Luther Sexton, of Hazlehurst, Miss., reports the following case in the New Orleans *Medical Journal*, for December, 1881:—

On the 22d of September I was called to see a baby (Lucy Minor), stout and hearty; weighed 8 pounds at birth, but it had not defecated since its birth, Sept. 20th, though it had been given oil and salts on two different occasions. On examination, I found it fretful, a little feverish, with abdomen considerably distended and tympanitic on percussion. The natural inference of Dr. Purnell and myself was, that there was an accumulation of gas and fæces.

Upon examining the rectum we found it impervious and decided to operate at once, and after debating for some time over the different operations, viz: Littres', Callisen, and Amussat, we finally performed the perineal operation, because we thought we could detect fluctuation in that location, and preferred making the opening at the proper place. I will not describe the operation further than to say I made the first incision by transfixion, and then cautiously dissected up the curve of the sacrum, avoiding the iliac vessels, bladder and peritoneum, till the gut was reached, which presented a dark, glistening appearance. On making an incision into this, at least half a pint of a very dark meconium passed from the child, with a large quantity of gas; this was not offensive. I did not bring down the mucous membrane of the gut and stitch it to the skin, as recommended, because I did not think it practicable in this case. The gut was found rather high up and the parts were so tender that I did not think that sutures would hold, and I expect to keep the parts constantly dilated, to prevent contraction, and think this will answer every purpose. I cannot tell yet what control it will have over the sphincter muscle; in fact, I am not certain it has any. I was cautious in not making the opening too large, as I did not want to wound it, if it was there. The baby is doing well; has its actions naturally; is healthy in every way; no other deformity, nor has there ever been any in the family. The mother and father are well grown and perfectly healthy in very way. It is hardly necessary for me to say I used the ordinary carbolized dressing, with every precaution in regard to cleanliness.

A Case of Anuria of Seventeen Days' Standing.

Dr. C. A. Bryce, of Richmond, Va., writes in the *Southern Clinic* for December, 1881:—

About a month ago I was consulted by James Taylor, colored, factory hand, residing at 305 West Broad street, who said that he could not pass his water, and was suffering some pain and uneasiness in the lower part of his abdomen, or "bottom of his belly," as he located the place of uneasiness. He said his pain was not great by any means, and he wished to see about the trouble as much to satisfy his mind as to relieve his pain, as he had passed no water for *seventeen days*, and felt somewhat concerned as to what was the matter.

A number eight catheter was readily passed into the bladder, and about a pint of urine was drawn off, high-colored and somewhat ammoniacal in odor. Upon questioning the man closely in reference to the time he had been without voiding urine, and doubting the accuracy of his statements, he stated that there could be no doubt about the fact of his not having passed any water for the time mentioned, as he was in Manchester

*"Hydatid Disease of the Liver: its Diagnosis and Treatment." By Mortimer Balding, B.A., M.D. Cantab. London: Harrison & Sons.

on Sunday a fortnight back and passed his urine before coming back to Richmond; before going to bed he tried to pass it, but could not, "and not one drop have I passed until to-day, which is Wednesday, making seventeen days." This man said he had no inconvenience during the entire time, no sick stomach, no headache, and not a single symptom of disease; that he had pursued his daily avocation as a lump-maker in the tobacco factory, and had concluded not to consult a doctor until he had some cause to do so. And finally, that having some pain over his bladder, he had consulted me, thinking the time for professional advice had arrived. He has since passed the usual amount of urine daily, and is, to all appearances, in perfect health. I have not the least doubt in my mind that the man's statements were correct in every particular, and give his name and number, so that any of our physicians may see him and question him further upon the subject, should they feel an interest in the matter.

Reviews and Book Notices.

NOTES ON CURRENT MEDICAL LITERATURE.

LITERARY EXCHANGES.

"*The Century Magazine*," or *Scribner's Monthly*, for January, is a splendid number. The frontispiece is a fine portrait of Louis Adolphus Thiers, and Elihu B. Washburne gives a very interesting reminiscence of the noted Frenchman. Mary Hallock Foote contributes a finely illustrated paper, "A Provincial Capital of Mexico." An interesting article by Catharine Cornaro, on "The Revival of Burano Lace." Mrs. F. Hodgson Burnett's new story, begun in November, "Through One Administration," is continued, also W. D. Howell's new serial, "A Modern Instance." "The Caverns of Luray," Va., by Ernest Ingersoll, illustrated, and a very interesting article illustrated by Lucy M. Mitchell, on Oriental and Early Greek Sculpture. There are numerous other papers of much interest, which, with the always attractive editorial Topics of the Times, make the January number one exceptionally good.

"*Harper's Monthly*," for January, is, as usual, very good. Its contents, "King Cosl's Highway," by G. F. Müller, and "With the Vanguard in Mexico," by W. H. Bishop, are attractive and well illustrated. "Ancient and Modern Venetian Glass," by J. J. Jarvis, is very readable. Constance F. Woolson's novel, "Anne," is continued, and Thomas Hardy's "The Laodicean," comes to a felicitous ending. A fourth paper by Mr. Hatton, and George R. Crooks' paper on the Young Men's Christian Association, have some fine portrait illustrations. F. R. Stockton has one of his characteristic stories. Hon. Geo. Edmunds and Robert T. Keep contribute papers of much interest. The poems are short but good, and "Pastor Dankwaldt," illustrated. The "Easy Chair" contributions of the editor have the never-failing freshness and gracefulness so characteristic of *Harper's Monthly*.

"*St. Nicholas*," for December, is a charming Christmas treat, not only for the young people but for the older readers. Some of the illustrations are exquisite, and all attractive. We can name but a few of the charming articles of this number: "Donald and Dorothy;" "An Angel in an Ulster;" "Stories of Art and Artists;" "Little Polly's Voyage;" "The Hoosier School Boy," etc.

"*Littell's Living Age*" comes, with every week's treasures, unequaled in variety and interest. A model magazine.

BOOK NOTICES.

A Manual of Midwifery. By Alfred Meadows, M.D. Lond., F.R.C.P., late Examiner in Midwifery at the Royal College of Physicians, etc., etc., assisted by Albert J. Venn, M.D., M.R.C.P., Obstetric Physician to the Metropolitan Free Hospital, etc., etc. The fourth edition, revised and enlarged, and illustrated with 137 wood engravings: G. P. Putnam's Sons, 27 and 29 West 23d street, New York. 1882. Cloth, small 8vo, pp. 498. Price $2.50.

As a manual for students and young practitioners, we have always regarded Dr. Meadows' as one of the best in the English language. In this new edition several additions have been made, the entire text has been carefully revised, and matter that seemed obsolete has been omitted. The general arrangement of the work, which makes it especially adapted as a book for ready reference, has, however, not been changed. The illustrations are good, and the general appearance of the book very fair.

Walsh's Physician's Handy Ledger, a Companion to Walsh's Physician's Combined Call-Book and Tablet. Published by Ralph Walsh, M.D., 332 C street, Northwest, Washington, D. C. Price: 600 patients $3.50; 1200 patients $6.00.

The Handy Ledger is designed to assist the hurried and busy practitioner in keeping his accounts. The plan of the book is so simple, yet complete, that but a half hour per week is needed to keep a large practice posted up. It is equally well adapted to the wants of city or country practice, and will accommodate six and twelve hundred names. At the end of the year the entire year's work and nature of attendance can be seen at a glance. It is the most simple, yet complete, system of book keeping we have ever seen, and is sure to repay its cost many times by saving time and labor, and enabling the busy practitioner to keep his accounts straight.

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THE HYGIENE OF SCHOOLS.

The subject of school hygiene is receiving close attention in Cleveland, and the method there adopted is worthy of the highest commendation, and of imitation in other cities. It is based in a general way, and with such adaptations as recommend themselves by the difference of surroundings, on the system of medical inspection of schools in the city of Brussels, Belgium, as carried out by the city Health Department.

The authorities of Cleveland have reproduced the forms of blanks used in Brussels, and have published them, with extracts from the reports of Drs. Janssens and Bonmarriage, explaining their application and utility. We believe copies can be obtained by addressing Dr. L. B. Tuckerman, of Cleveland, to whom we are indebted for a specimen.

It is justly said, in these reports, that with regard to non-contagious, chronic, or constitutional diseases, we believe we do not go too far in saying that the school is destined to be the field where preventive medicine will give the most manifest proofs of its power and win its most glorious victories. If we justly consider the school as a moral agency which should help to depopulate the prisons and galleys, we can equally, from our present point of view, regard it as destined to lighten the budget of the hospitals and almshouses. It is certain that at his home, the child of a laborer, if afflicted with a chronic disease that does not confine him to his bed, will but rarely be the object of that hygienic care indispensable to him; while in the class room, under men both competent and devoted, he can be submitted to an incessant watching and an assiduous care, of which his cure will be very often the assured reward. To care for the children in school so that they shall not become good-for-nothings in the social workshop and in the ranks of the defenders of their country; so that they shall not contribute later to burden the budget of the official charity already too heavy; such is the goal assigned to the efforts of the devoted men who are sacrificing their time and more remunerative occupation to secure to the young generation at school new elements of health, that is, of riches and social prosperity. The subject cannot be too forcibly urged on the attention of medical men in all parts of the country.

THE SPREAD OF SMALLPOX.

On previous occasions we have urged the importance of a new study of smallpox, and the means of its prevention. It is only too obvious that there has been, in the last ten years, an increase of the disease, both in Europe and America.

Does this come from the opposition to or the neglect of vaccination? Does it proceed from the use of inert vaccine matter, or erroneous methods of employing that which is active? Is vaccination itself, however well performed, merely a temporary check to the extension of the disease? Should both vaccination and revaccination be made obligatory and performed at government expense, as an indispensable means of public protection?

These are the questions which, in one form or

another, have often been put in these columns, and still remain unanswered. They have been put also by the most eminent sanitary authorities of the world, and rank among those the solution of which most nearly concerns the immediate welfare of the State. So much prejudice for and against the possible answers exist, that it is far from easy to arrive at a correct conclusion, even when ample statistics are furnished. The result is that while the Doctors debate the patients sicken and die.

An item which ran through the newspapers at the close of December, shows how earnest is the need of decision and action. It was to the effect that the Post-office Department had been appealed to by postmasters in some places to adopt some method of protecting them from mail matter infected by smallpox, "even to the extent of stopping the mail altogether if other means fail." The Department was, said the account, considering the matter.

It is officially stated that smallpox exists in thirty-seven places in Illinois, although in about two thirds of them the disease is believed to be under control. A telegram from Keokuk, Iowa, of the same date, reports that between thirty and forty of the medical students there have contracted smallpox from a body imported from Chicago and used in the dissecting room of the college.

A number of cases of smallpox were reported in Buffalo, and the disease on the increase, while from New York city and smaller towns in many portions of the Union, the same reports were sent.

With such facts staring them in the face, the Legislatures of the different States will soon have to adopt decided measures to stay the pestilence. The inertness and indifference which characterize such bodies must give way to a rational regard for the sanitary condition of the community. The organization of Boards of Health and Local Boards is the first step. Nothing can be done effectually and permanently without this step. And any brief spasmodic endeavor will be of no lasting service.

Notes and Comments.

A New Application of Electricity in Labor.

At an adjourned meeting of the Paris Academy of Medicine, Dr. George Apostoli read a communication on the above subject. He remarked that at present histology and clinical observation agree in attributing almost all cases of metritis or uterine engorgement to interrupted uterine involution. He, therefore, proposes as a prophylactic agent in an affection which so often follows labor, the adoption of the following new therapeutic method. He thus expresses himself: A woman having been delivered, whether at full term or not, I immediately apply to her uterus a faradic or induction current, generated by a coil made from a short, thick wire, and of progressive intensity. In case of normal and full-term labor, I renew this operation eight or ten times within about six days. In cases of difficult or premature labor, I repeat it fifteen or twenty times through a period of from ten to fifteen days. My object is to aid, hasten, and perfect uterine involution, and thus avoid all the complications incident to slow or deferred convalescence.

The following conclusions have been reached by the study of thirty-two cases within the past two years, comprising eleven premature births and twenty-one full-term deliveries, during the course of which I have performed a total of five hundred electrizations of the uterus while in a gravid or puerperal state: 1. Faradization of the uterus is always absolutely harmless. 2. It invariably has a calming and sedative effect. 3. It greatly reduces convalescence by hastening the involution or retraction of the uterus, which, in general, from the sixth to the eighth day, can no longer be felt under the pubis. 4. By faradization the return and regular exercise of all the functions is accelerated. 5. The patient is spared all the uterine complications incident to labor. 6. Faradization is really a preventive treatment against uterine deviations and such consequences of labor as retroflexions or retroversions. 7. Its effects, I believe, are to reduce lochial discharges. 8. In presence of a faradic current of given strength, uterine contractility greatly varies, and is in the inverse ratio of its inertia. 9. Finally, the effects of faradization on the uterus, as compared with those of ergot, are undoubtedly more prompt and energetic.

In conclusion, I propose the introduction in obstetrical therapeutics, of uterine faradization in every case of labor: First, because it is a

wonderful method, of easy application, readily controlled, rapid and energetic in its effects, always harmless, and capable of being applied or discontinued at will. And second, because its immediate effects tend to restore the patient's health, while it ultimately guards against all subsequent uterine complications.

Pencils of Tannin in Chronic Metritis.

℞.	Tannin,	grs. 30
	Pure glycerine,	gtt. 3.

Make four pencils, two inches long.—*Bull. Ther.* (*Bouchardat*).

Malaria and Diabetes.

At a recent meeting of the Academie, M. Verneuil called attention to the relations existing between glycosuria and malarial diseases. Both maladies coexisted in six cases observed in his service, where the patients entered for various surgical diseases (epithelioma of the penis gangrenous patch (plaque) on the heel, tumor, etc.)

The principal memoir on the coexistence of these two morbid states is by M. Burdel, of Vierzon, presented to the Acad. des Sciences, in 1859. This observer found sugar in 80 out of 86 cases of true intermittent fever. The conclusions he arrives at are as follows:—

1st. There exists in malarial fever a veritable glycosuria.

2d. This diabetes is ephemeral; it appears with the fever, persists during its continuance and disappears with it.

3d. The glycosuria of intermittent fever reveals the deep and special effect this form of fever has on the equilibrium existing between the cerebro-spinal and the sympathetic nervous systems.

4th. This explanation, given by Cl. Bernard, is in conformity with the clinical facts.

5th. The more violent and intense the access of fever, the greater the quantity of sugar found in the urine.

6th. When, on the contrary, the attacks become more numerous and less intense; when, in a word, the malarial cachexia becomes established, then it will be found that the quantity of sugar is much less considerable.

The cases observed by M. Verneuil have led him to somewhat different conclusions, and none of his patients had had actual attacks of intermittent for some time previous to coming under his observation. These cases and others have led M. Verneuil to arrive at the following conclusions:—

1st. Malaria frequently engenders glycosuria.

2d. Which presents itself in two forms: the one cotemporary with the febrile attack, and like it, short and fugacious; the other supervening at a period, more or less distant, independent of the febrile paroxysm and permanent.

3d. Permanent glycosuria seems to attack, by preference, vigorous subjects, having some leaning to the arthritic diathesis.

4th. Glycosuria, of malarial origin, appears to be one of the benign forms of diabetes.

5th. Intermittent affections supervening in such subjects, may take on certain characters of malaria or glycosuria, or of both diseases at the same time.

Traumatic lesions may awaken or aggravate the two diatheses, particlarly the accidents of malarial origin.

M. Leon Colin considered that a greater number of observations were needed to confirm the conclusions arrived at by M. Verneuil.

Local Temperature in Acute Abscess.

M. Assaky, interne in Prof. Gosselin's service, has made some very interesting researches regarding the local temperature in the centre of an acute phlegmon. The mode of treatment pursued in Prof. Gosselin's service permitted direct mensuration, and M. Assaky was enabled to draw the conclusions at which he arrives from personal examination in 123 cases.

M. Gosselin generally makes a small, narrow incision, allowing the pus collected to escape, and then injects alcohol at 90°, so that the internal temperature of the abscess could be taken at the debut of the phlegmonous inflammation, and at any period during its evolution. To render the experiment more exact, the surface temperature was taken over the abscess, over the corresponding parts on the other side of the body, and in a certain number of cases in the axilla.

From his researches, M. Assaky has arrived at the following conclusions:—

1st. The temperature in the centre of a subcutaneous acute abscess varies from 37.5° C. to 38.5° C. It oscillates between these two figures, no matter in what region the abscess be situated, and whatever the age and constitutional condition of the patient.

2d. The surface temperature over the abscess is always higher than that on the corresponding part of the other side of the body. Sometimes it is from one-half to two degrees and a half

(Centigrade) higher. In about one-half of M. Assaky's cases it was from one degree to one and one-half higher.

3d. This localized elevation of temperature tends to disappear as the abscess approaches complete cure. Nevertheless, the rise and fall of the temperature proper of the abscess is independent of the general temperature of the body.

Thymol in Diphtheria.

The following mixture containing thymol has, we read in *Le Progrès Médicale*, proven very efficacious in Dr. Warren's hands:—

℞.	Thymol,	gr. ivss–viss	
	Potass. chlorat.,	ʒ iiss	
	Quiniæ bisulph.,	ʒ ss–ʒ j	
	Sp. vini gall.,	ʒ viiiss	
	Glycerinæ,	ʒ ij.	M.

For children, from two to five years of age, a dessertspoonful may be given every hour, or every second hour.

The mixture should be given, if possible, undiluted, in order to obtain its excitant, almost irritant action on the buccal parietes.

This mixture may also be employed as a prophylactic agent against diphtheria and malaria. By the addition of a few drops of tincture of iron to each dose it acts as a tonic and may be employed with success in typhoid fever when diarrhœa is present.

Chloral Injections in Incoercible Vomiting.

Dr. Vidal, of the St. Louis Hospital, Paris, has often used the above with success. In cases of vomiting during pregnancy, these injections, composed of half a pint of infusion of orange leaves and one gram = 15 grains of chloral, are given twice daily. Care being taken to administer them an hour before meals.

Dr. Dussaud, in a recent address before the Medical Society of Marseilles, mentioned the case of a woman, 28 years old, pregnant, who, at regular monthly intervals, suffered from incoercible vomiting; this was subdued by chloral injections. (*Paris Médicale*, Nov. 12th, 1881.)

Ixora Danduca in Dysentery.

The Indian *Medical Gazette* recommends as an efficacious remedy for dysentery the tincture of the fresh root of the ixora danduca. The whole root, and not the bark only, must be used to prepare the tincture, and the fresh root is found to be better than the dried.

To make the tincture, bruise the root, macerate for a week, four ounces of it in a pint of rectified alcohol, express and filter.

A compound tincture may be made by adding to the tincture 3 drachms of long pepper, powdered. The dose is from 30 to 60 grains (Troy), three or four times a day. This is an excellent remedy, and possesess an aromatic, agreeable taste.

Special Reports.

NO. I.—THE MANAGEMENT AND DRESSING OF WOUNDS.

(*Concluded from p. 26.*)

MODIFICATION OF LISTER'S DRESSING.

A useful and convenient modification of Lister's dressing is one used by Dr. James L. Little, of New York City (N. Y. *Medical Journal*, Dec. 1881). He has employed it for some years in torn and lacerated wounds, with much success. The description he gives of it is as follows:—

Having put the parts in a condition for dressing, I wash the wound in a solution of carbolic acid, of the strength of one to twenty; I then cover the parts with a thick layer of borated cotton, and then snugly and evenly apply a simple gauze bandage. At first I used bandages made of antiseptic gauze, but for the past three years have used those of plain uncarbolized cheese cloth. These thin bandages distribute the pressure more evenly over the cotton, and are more easily saturated with fluids than those made of unbleached muslin.

The patient is instructed to keep the outside of the dressing wet with a solution of carbolic acid of the strength of one to one hundred. I frequently employ Squibb's solution of impure carbolic acid, which is of the strength of one to fifty, and which, when mixed with an equal bulk of water, gives a solution of the desired strength.

The parts should be kept at rest, and the dressings may be left undisturbed for several days, unless there is pain, rise of temperature, or discharge through the dressings. These conditions are always to be considered indications for redressing.

In many cases where rubber drainage tubes have been used, they may be removed at the second dressing, and if catgut has been used for sutures, this second dressing can be allowed to remain on for an indefinite period. In a number of cases of lacerated wounds, I have allowed the first dressing to remain on until the wound has entirely healed. In these cases the external use of carbolic lotion was discontinued after the fifth or sixth day, and the dressings would become dry and hard, the wound healing, as it were, "under a scab."

The patient should be instructed to loosen the bandage at once, if any pain occurs.

PREPARATION OF PHENILATED TARLATANE FOR ANTISEPTIC DRESSINGS.

Paris Médicale (November 12th, 1881) publishes, from a Vienna medical journal, Professor

Kaposi's method of preparing phenilated tarlatane, as a cheap and convenient substitute for the more complicated, and often not easily procurable, articles used in the Listerian dressings for wounds.

Pieces of unbleached tarlatane, of convenient size, are immersed in a liquid contained in a covered receptacle, and composed as follows:—

℞. Water,	5 litres,	=	Oxi
Alcohol,	500 grams	=	℥ xvij
Glycerine,	500 "	=	℥ xvij
Phenic acid,	300 "	=	℥ ix, ʒ iij.
			M.

These pieces of tarlatane are allowed to macerate in the liquid for about eight days, and as they are required for dressings, are daily replaced by fresh pieces, which are placed at the bottom of the receptacle.

In cases of pressing necessity, an immersion of two hours suffices to destroy all germs which may be contained in the tissue.

Dressings thus prepared should first be rinsed in lukewarm water, and then wrung out, so as to free them from any excess of phenic acid. Otherwise, this might have a corrosive effect on the epidermis, and cause slight symptoms of phenic intoxication, manifesting themselves by black urine.

The edges of the tarlatane strips are lined with cotton wool so as to filter the air, and the whole is covered over with some impervious material, and bound with a strip of net tarlatane, still containing its starch sizing. In drying, these strips adhere to the dressings and skin, and are not disturbed by the patient's movements. As regards the impervious material, Mr. Bœckel has used in place of Lister's *mackintosh*, which is rather expensive, sheets of india rubber cloth, or even *vegetable parchment* (ordinary paper dipped in sulphuric acid); oiled or parafined paper, could likewise be used, and if in two or three thicknesses, would be as resistant as india rubber.

Gummed *silk* is useful in bringing together wide sores, and preserving them from the irritating attacks of phenic acid. It should be fenestrated so as to prevent pus from accumulating beneath it.

SPONGE DRESSING.

The value of the sponge dressing, to which we have already alluded, is explained by Mr. S. Gamgee, in the *Lancet*, November 12, to be simply the application of an old principle, and, perhaps, not a very brilliant one. He observes:—

In the hands of a very careful surgeon, sponges may be used with safety; but it is quite conceivable that the difficulty of cleansing them thoroughly may have proved a source of foulness and its attendant evils, and may explain the abandonment of the use of sponges by all, except a few surgeons. I hold that absorbent and elastic wound dressings, so favorable to drainage and compression, should be burnt after use; and I know of no such dressings more cheap, handy, and efficient than the absorbent and antiseptic gauze and cotton pads, prepared on my suggestion, by Messrs. Southall Brothers and Barclay. But whatever the material used, whether oakum or tenax, sawdust or earth, tow or stypium, salicylic silk or cotton, sponge or pads, is only a question of practical detail. The governing principle is the same. Dry and infrequent dressing, immobility, and pressure are the essentials of wound treatment.

ESMARCH'S PERMANENT ASEPTIC DRESSING.

The eminent surgeon, Esmarch, has carried asepticism to its logical conclusion, maintaining that if a wound is once well and completely dressed antiseptically, it should heal without much further attention, and that changing the dressings is merely incurring new dangers needlessly. The method has stood this test wonderfully. In one of his recent addresses, Prof. Lister himself said of Esmarch's plan:—

I cannot forbear making a passing allusion to the extremely remarkable results which have been related by Professor Esmarch, as obtained by his permanent dressing—results so surprising that they would be incredible were it not for the perfect trustworthiness of the authority that vouches for them. And I would ask those who advocate mere cleanliness, as distinguished from antiseptic practice, how they can reconcile their views with facts such as these? What can be more dirty, in the ordinary acceptation of the term, than a wound left covered up with the same dressing for weeks together, the original blood and serum remaining upon it intact under this "Dauer-Verband?" Yet it is surgically clean, because it is aseptic. On the other hand, the æsthetically cleanly water-dressing is surgically dirty, because it contains elements which give rise to septic changes in wounds.

GENERAL ACCEPTANCE OF ANTISEPTIC DRESSINGS.

In spite of criticism and opposition, there is no doubt but that the aseptic plan of dressing wounds has gained a permanent foothold in surgery. In his address at the International, Prof. Volkmann said:—

In speaking of the open treatment of wounds, I have touched on the opposition which the new doctrine at first met with on so many sides. You all know well how violent this was. Even in science great changes cannot be brought about without injury to numerous individual interests; but I insist that nowadays no serious opposition exists; that there is no surgeon who would dare, at the operating table, or in the treatment of the wounded, quite to renounce antiseptic methods; who calmly and with a good conscience would tread the paths which, fifteen years ago, we all followed like sheep. Even the most

obstinate have had to give way to the great principles of the new era, and often in a much higher degree than they acknowledge to themselves or others; the necessity not only of the disinfection of hands, sponges, instruments, and bandages, but also the necessity of a primary disinfection of fresh wounds, is, I believe, universally acknowledged.

CORRESPONDENCE.

Alcohol in Diphtheria.

ED. MED. AND SURG. REPORTER:—

Inasmuch as the time has not come when the remedy for diphtheria has been found which can be depended upon every time, it is the duty of all who are called to treat it to give the results obtained to the profession, so that different results may be compared. This is a subject which has very greatly interested me, and I have sought in every way that I could to become informed upon the treatment of this terrible disease. I have never met with an epidemic of it, and yet I have had some severe and fatal cases. I have met with some success in the treatment of severe cases, and cannot say but they would have been fatal, had not prompt treatment been commenced and persistently carried out.

A few years since, when Dr. Drysdale published his paper, and it was given in the MEDICAL AND SURGICAL REPORTER, with the results attending the use of chlorate of potash in his hands, I was greatly interested in it, and read and re read it a number of times. I carried its teachings out in my practice, and felt very much pleased with my success, and have great faith in chlorate of potash now, as being a valuable remedy in the treatment of diphtheria. I think the failures from its use are to be ascribed to its not being given as freely as Dr. Drysdale urges. I met with numerous cases which recovered under its use. An article from the pen of Dr. Jacoby, of New York, in which its poisonous action was described, with some fatal results attending its use in large doses, brought to my mind a case that came under my care, of a clergyman who was taken with this disease, and to whom I was called. I prescribed for him the saturated solution of chlorate of potash, to be taken in tablespoonful doses every two hours. The gentleman was one of those impulsive men, and thought if a little would do good, that double the quantity would do more. At evening the medicine was gone, and had to be renewed. The next day, towards evening, he was taken with vomiting, and I could not tell why, for he had appeared better in the morning. The urine which he voided was as dark as coffee, and caused me some apprehension. The potash was discontinued and the next day he was improving. From Dr. Jacoby's article I learned that my patient had taken too much potash, and there was danger of acute nephritis supervening. Since that time I have been careful to have my directions followed more closely.

I read of Dr. E. N. Chapman's success with alcohol in the treatment of this disease, and resolved to give it a trial when a case should present itself. The first case was myself. During the past winter of 1881 I was taken with a severe chill at night, which lasted part of the night, followed with a high fever. My throat was not much sore, and I did not know what was coming upon me. I inspected my throat and saw several large patches of membrane, covering both tonsils; resorted to the use of whisky, taking every hour two large tablespoonfuls for twenty-fours before I began to feel better; and when I did begin to improve I discontinued its use; the membrane came off my throat, but it was several weeks before I got strong and well.

My second case was a little boy of six or seven years, who had moved from a town where it had prevailed as an epidemic, and several had died. When I first saw him he was feverish, but did not complain of his throat, and I prescribed a fever mixture and thought it a case of malarial affection. The next day he appeared so much better, I was requested not to call. In the evening, his father called to see me and get some more medicine, and I concluded to see him the next morning. On seeing him, he did not appear any worse. He said his throat was sore, and I examined it, and was surprised to see so much deposit in the throat and covering the tonsils, from so little constitutional disturbance. I immediately began the use of whisky every hour, in two teaspoonful doses, and continued it until the system came under its influence, the membrane came off the throat, and he began to improve. A few weeks after, his eyelids were partially paralyzed, and he could hardly hold up his head, from muscular weakness. His head would tip from side to side, and he could hardly speak, and his eyes were squinted. This continued for a few weeks, when he began to recover his strength.

The third case was my son, a lad of nearly twelve years, who came down with the diphtheria after school, and when inspected, his throat, the tonsils and fauces, were covered with a thick membrane. I gave him the same treatment, and did not remit the whisky until his system came under its influence, when the membrane would come off in flakes, leaving a deep ulcer on the tonsil, but the membrane did not form again, and he recovered, but was weak and trembling for some days; he improved under the use of quinine and iron. I used the chlorate as a gargle all the time, and gave some of it internally. I want to impress upon the profession the importance of giving special attention to the throat when first called, and when convinced of the nature of the disease, to begin at once the use of some alcoholic stimulant, and push it until the system is saturated, and not to desist until that point is reached. You will be surprised at the amount that can be taken before the system will feel its stupefying effect. I hope all who have to treat this disease will give this remedy a trial, and see how well you can control this fearful disease. Let me quote a note from Dr. F. C. Roberts, of Fort Madison, Iowa, in *Gaillard's Medical Journal*:—

"While cauterizing a patient's throat, the victim coughed, throwing the diphtheritic membrane all over my face. After a few days I fell

ill with the disease and suffered severely. I used the ordinary routine treatment, but became gradually weaker. The membrane in my throat nearly suffocated me. At last, becoming very weak, I sent for some whisky to use as a stimulant. A drink of it nearly suffocated me, and I strangled badly, and coughing hard, ejected a large quantity of membrane in an almost cooked condition; immediately relief followed, and in a short time I again used the whisky; this time as a gargle, and the sensation of ease and comfort following induced me to use it frequently, and in a few days I was completely cured.

The second case was as follows: I was called in consultation with Dr. Hoffmeister; found the patient, a boy of fourteen years, suffering the same as I had, only much weaker, and nearly black in the face, from suffocation. Remembering my own experience, I advised the use of stimulants internally, and the following gargle:—

℞. Potassa chloratis, ℥ ss
Alcohol,
Aqua rosæ, āā ℥ ij. M.
To be used frequently.

Immediate improvement followed. Since that time I have used the alcohol very freely in diphtheritic cases, and always with the most favorable results."

H. N. Burr, M.D.

Walworth, N. Y.

Suggestions in the Treatment of Traumatic Tetanus.

Ed. Med. and Surg. Reporter:—

On Friday, Nov. 18th, 1881, Thomas W. accidentally discharged his gun, carrying away the palmar portion of right hand and wrist. I was at once summoned, and found a fearfully lacerated wound, the flexors of the thumb, the palmar aponeurosis torn in shreds, and the tendons of the flexor muscles of the forearm were more or less involved. Although the destruction was very great, hemorrhage was at the minimum, the larger blood vessels—palmar arch, etc., seemed not to have been injured, therefore I resolved to make an effort to save the hand. I cleansed the wound, carefully adjusted the detached parts, applied bandages, introduced the catheter, and left my patient with instructions to take thirty drops opii. tinc., should he have pain. It was not needed; my patient rested easily. The two following days, a water dressing was used; after this carbolized oil, and I must say, that I never knew a wound to do better; suppuration was established, and when the bandages were removed, the injured part would be found bathed in a healthy, cream-like pus.

I was highly elated, thinking my patient would make a speedy recovery, but I was doomed to disappointment, for on the tenth day he complained of what he termed a cramping pain in the pit of the stomach, and some difficulty in deglutition. I recognized tetanus, and expected to find a change from the former healthy appearance of the injured part, but on removing the bandage, I found all in as good condition as I could wish—the usual quantity of healthy pus, rapid granulation, nothing like undue inflammatory action. Most surgeons tell us that, when tetanus makes its appearance, the wound has been in, or assumes at the time, an unhealthy condition. Dr. Abernethy, I think, relates a case where, after free suppuration, the spasm and rigidity disappeared, implying that it had been suspended during the attack; not so in my case. During the whole period in which there was the most violent tetanus, the wound progressed rapidly toward repair, the suppuration, and healing never for one moment ceased.

On the eleventh day since the injury I found Mr. W. in a very critical condition; tonic rigidity of the muscles of the neck; almost unbearable pain, especially severe inferior to sternum; jaws clenched; inability to swallow; risus sardonicus, and bathed in profuse perspiration. The mind was perfectly clear, and altogether he was a horrible spectacle. I will call attention to a prominent symptom, viz., an uncontrollable desire for water, of which he could not swallow a drop, or at least it would not enter the stomach, stopping, as he said, two-thirds the way down, where it would remain for a moment, and then be expelled with force. In the attempts to swallow, asphyxia would almost take place, and in my efforts to prevent strangulation I discovered something new, or, at least, new to me, and will give it, for the benefit of those who may be called to manage a similar case:—

My patient was choking, from a spoonful of water he had attempted to swallow. I placed my hand on the back of the neck, pushing the *whole body* well forward, hoping to thus empty the pharynx. Understand, I did not flex the neck, I pushed the whole trunk well forward, and, greatly to my surprise, he exclaimed, "It is gone," and sure enough the fluid had passed the cardiac orifice. Acting upon this hint, I immediately gave a dose of potass. bromide, pushed the *body* well forward; it passed into the stomach without producing strangulation, a hitherto impossible operation. By resorting to this manœuvre, food and medicines were administered for three days, or until relaxation took place sufficiently to allow deglutition in the usual manner. Fortunately for the community, and unfortunately for me as an investigator, tetanus is of such rare occurrence in my practice, that it may be years before I can prove or disprove the efficacy of this plan in other cases; but, as the plan is easily tried, I would advise all to give it a trial, and I would be pleased to hear the result.

I will not attempt to advance a theory; yet I have thought that in pushing the body well forward, a position was gained which favored the relaxation of the diaphragm sufficiently to allow the opening of the cardiac orifice, the seeming point of obstruction. The muscular fibres of the œsophagus seemed not to be affected by the spasm, at least not until the water had remained in it sufficiently long to produce it. I am content to let fine-spun theories alone, and rest satisfied with the truth, pure and simple. The administration of medicines and food by any other channel than the mouth is attended with considerable trouble and inconvenience, not saying anything about the shock to the modesty of a delicate female; therefore, if my experience in this case should hold good in others, the physician, as well as the patient, will be saved considerable annoyance. I adopted the following plan

of treatment, viz.:—For the first ten days, gave morph. sulph. per mouth and hypodermically, in sufficiently large quantities to mitigate the pain; on the second and third days, the morning of each, one grain of the drug was given hypodermically, and repeated in one hour; during the balance of the days, one fourth grain was given, on an average of every other hour. My instructions were to allay the pain without regard to the interval, and the nurses religiously followed directions. In addition, twenty grains potass. bromid. was given every third hour: ice to the spine, the application of which seemed very grateful to the patient. This plan was continued until relaxation began to take place, when twenty-grain doses of chloral hydrat. were substituted for the morphia; and I suspect after this substitution the recovery was more rapid. The bowels were occasionally moved with ol. tiglii and calomel. The final result was complete recovery.

THEO. A. WORRALL, M.D.

Penna.

A New Dissecting Knife.

ED. MED. AND SURG. REPORTER:—

The instrument I bring to the attention of your readers is made from a rod of steel, 19 cm. long and 7 cm. square, tapered down on each side of the middle point, for a distance of 4 cm., to the thickness of a stiff spatula, the central spindle-shaped piece forming the handle. The ends of the rod, 5.5 cm. long, are forged into moderately thin, springy blades, one being sharpened at the point and along the edges for a distance of 3.5 cm., the other being rounded at the point, and not sharpened. All the edges and angles are carefully rounded and polished, the cutting edge, of course, excepted. The knife, as a whole, is bent into a double curve, making a clavicular shaped instrument.

This was devised for use in dissecting, and with it work may be done much more quickly and satisfactorily than with the ordinary scalpel. The knife is held like a penholder, the proximal end of the blade being held between the thumb and index finger, the back resting on the middle finger, the concave side being superior. The knife is very nicely balanced, and, owing to the shape of the handle and curve of the blade, can be firmly held and lightly held in the proper position, so that great precision may be obtained in its use, and a long sweeping cut can be made, using both point and edge; whereas in the scalpel, only the point is available, the strokes being short and the action being one of picking more than cutting. The blade of a scalpel is so set in the handle that it stands nearly vertical when held in the usual manner, and so the motion is limited to the fingers. In this knife the blade is so set in relation to the handle that we get a free action of the fingers and wrist; and as but little effort is required to hold it, the hand does not become cramped and tired.

It is especially useful in dissecting away the fascia, in following the course of nerves, arteries, and veins, and in separating individual muscles, especially the long muscles of the extremities and back.

The unsharpened blade is useful as an exploring probe and as an elevator, and is often more safely used than the sharp blade in dissections of the vessels. In demonstrating, it is useful as a pointer and elevator.

This instrument will be found of use in surgical operations. To make it more applicable to this purpose a small hole was made in the unsharpened blade near the tip, and a groove was made, running lengthwise of the blade, so that the probe could be used as a ligature carrier or director. In exploring sinuses and similar cavities the probe may be used to advantage as a sinus dilator, since there are no sharp edges to sever arteries or veins. For ligating arteries for aneurism, or veins for varices, the knife may be used for making the necessary incisions, and the other blade will serve to carry the ligature under the vessel. It is also useful in operations for lacerated cervix, for those of the mouth and throat, and many minor operations. Being forged from a single piece of steel, there are no crevices in which septic matter can lodge, and it is easily cleaned.

Boston, Mass. CHAS. EVERETT WARREN, M.D.

Investigations with Regard to School Children.

ED. MED. AND SURG. REPORTER:—

Having been for some time interested in the relations which obtain between brain growth and body growth, I undertook, with the sanction of a Committee of our Board of Education, an inquiry to discover, if possible, how prevalent, among the children in our higher public schools, were those symptoms which men like Drs. Day and Richardson, of London, and Drs. Thomas, Goodell, Hamilton, Beard, and others in this country, are wont to attribute, in no small degree, to the methods of intellectual training now standard in our schools.

The intention at first was, to secure information with regard to the large number (23 per cent. of the girls and 18 per cent. of the boys), that had withdrawn from one cause or another, from the High school, during the school year.

Later, it was thought best to gather, for purposes of comparison, information with regard to such recent graduates, and pupils still attending school, as lived in the immediate vicinity of those who had withdrawn, and who could thus be conveniently found.

Statements were thus obtained from the parents of two hundred and twenty-six pupils; forty boys who had withdrawn; ninety-six girls who had withdrawn; fifty eight girls still attending, and thirty-two recent graduates.

These statements showed that 37 per cent. of the boys and 75 per cent. of the girls had withdrawn, either wholly or in part, by reason of impaired health. Moreover, it appeared from these statements that, *while attending* school, many

pupils suffered from abnormal symptoms from which they were free, or nearly so, during vacation. The percentage is shown in the following table:—

While at School.	*Boys who left.*	*Girls who Left.*	*Girls still Attending.*	*Graduates.*
Health not so good	50	80	64	84
Lost appetite	23	46	38	38
Lost sleep	10	27	26	22
Had headache	45	72	55	69
Eyes weak	23	36	31	38
Eyes failed since entering	8	12	17	16
Had back or sideache	..	52	31	25
Had nervous troubles	..	44	36	66
Had hysteria	..	11	5	16
Complained of stair climbing	..	52	41	6
Menstrual symptoms known	..	42	30	13
Menses deranged while at school	..	62	57	46
Menses frequent or profuse	..	31	27	..
Menses scanty, irregular, painful	..	48	44	46

Cases where menses were both profuse and painful, were counted simultaneously in each class. As nervous troubles were classed hysteria, tremor, chorea, unnatural irritability, melancholy, etc., inquiry was made with regard to the amount of time pupils were in the habit of spending in study, outside of school hours. Also, with regard to the girls, what were their habits as to social recreation, etc. Collating the cases, as to hours of home study showed that for some reason, the girls habitually spent longer at their lessons than the boys. The ratio being as follows:—

Hours of home study	2	2-4	4-6	6
Boys, per cent.	25	65	5	3
Girls, " "	8	47	38	6

And that the percentage of abnormal symptoms increased among the 186 girls, as a rule, side by side with the increase of home study, thus:—

Hours of home study		2	2-4	4-6	6
Health power, while at school, per cent.	29	70	93	100	
Lost appetite	"	7	44	47	64
Lost sleep	"	7	18	34	64
Had headache	"	22	62	81	100
Had back or sideache	"	14	34	54	45
Had nervous troubles	"	7	31	61	91
Had hysteria	"	—	5	19	18
Had eyes weak	"	29	39	36	45
Failed since ent'g high school,	"	14	13	18	17
Menstrual symptoms known, No		5	40	31	9
Menses deranged at school, per cent	20	50	81	33	
Menses frequent or profuse, per cent	20	28	26	11	
Menses scanty, irregular, painful, per ct.	—	35	71	33	

Showing that so far as these 186 were concerned, the home study was an active factor in producing these symptoms. The better average health of those who indulged more freely in social recreation was almost equally marked.

Of course, so few cases cannot be cited as proving general laws, but they indicate a fruitful field for statistical inquiry, and it is to be hoped that the Board of Education here will conclude to continue the investigation, as has been proposed, till information shall have been obtained with regard to all who are at present attending our High Schools.

The remedy for these evils in our schools, evils which all acknowledge who have given the subject thought, lies in sytematic sanitary supervision of our schools by competent medical men. There must be some means provided, by which the physical effects of various systems of mental training can be thoroughly studied and regularly recorded.

The system which has been working so successfully in Brussels, Belgium, for the last seven years, should receive the careful consideration of students of sanitary science. By systematic medical inspection of the schools, they have been able to stamp out epidemics of the zymotic diseases among children.* And by special attention to those who, though able to attend school, are yet feeble, by reason of inherited dyscrasiæ; by regulating their brain work, and adapting their exercise to the needs of their physical condition, and by administering to such of them as are indigent, *cod-liver oil*, in the schools, they obtained, in two years, the following results†:—

Disease.	*Cured.*	*Better.*	*No. Treated.*
Scrofulous disease	72	156	288
Lymphatic "	34	283	366
Rachitic "	9	57	84
Anæmia	77	251	406
Chronic Bronchitis	6	4	21
Total	198	751	1163

Though their system, in all its details, would no doubt be unadapted to our American people, their results should prompt us to earnest effort to provide some efficient means to a like end.

L. B. Tuckerman, M.D.

East Cleveland, Ohio.

Opium Habit.

Ed. Med. and Surg. Reporter:—

Gradually reduce the amount of opium taken and increase the amount of nutritious food and tonics. The indications of treatment are: 1st. Gradually reduce the dose. 2d. Relieve the great nervousness, insomnia, prostration and suffering. Bromide of potassium will not do this, because in these cases there is anæmia of the brain, and it is contraindicated in anæmia of the brain. It may cause a little sleep in very large doses, but these irritate the stomach, they also increase prostration and suffering. The same remarks apply to chloral. They should never be depended on alone. Probably, in extreme insomnia, rightly combined with other nervines, they may do; but alone, I have seen them cause delirium, and I think are sometimes dangerous in these cases, by increasing the anæmia. Veratrum viride will not answer the second indication, nor will coca, nor oxide zinc. Nit. amyl is reported to do well and cause sleep; curara might be tried. If some medicine were discovered that had the same stimulant, excitant, exhilarating and sedative effects as morphia, and being a tonic without having any deleterious effects like morphia, nor checking the secretions and nutrition, it

*Congrès International d'Enseignement Rapport. de M. le Dr. Janssens, Bruxelles, 1880

†Congrès International d'Enseignement. Rapport de M. Le Dr. Bonmariage: Bruxelles, 1880.

would answer admirably as a morphia antidote. The following combination comes as near it, and meets the second indication better than anything I have seen:—

℞. Con. tinct. cannabis indica, gtt. 10
Narcotic.
Con. tinct. cypripedium, gtt. 15
Anti-spasmodic, nervine, tonic, narcotic, diaphoretic.
Sulphate hyoscyamia, gr. $\frac{1}{48}$
Soporific, sedative, narcotic diuretic, and laxative.
Con. tinct. humulus lupulin, gtt. 15
Nervine, hypnotic, febrifuge, diuretic and tonic.
Con. tinct. lycopus, gtt. 20
Astringent, styptic, sedative, and tonic.
Con. tinct. pulsatilla, gtt. 5
Nervine.
Con. tinct. hamamelis, gtt. 15
Astringent, tonic, sedative.

Mix above thoroughly, and as Shakspeare says, all the sedative herbs of the world will "Medicine him to sleep." I have tried above, and know it will do. It will entirely substitute the morphia. They are B. Keith's concentrated tinctures. Dose of above, gtt. 10 to 1 to 2 ʒ s.

To meet the third indication, to build up patient's strength and fatten him, give tonics of iron, phos., strychnia, etc., and give him hydroleine. Adopt Dr. Weir Mitchell's system of excessive feeding, and fatten him. Give as much good food (and often) as the stomach will bear.

JOHN M. WHITE, M.D.

Picrotoxine in Night Sweating.

ED. MED. AND SURG. REPORTER:—

During my last two terms of service at the Episcopal Hospital, I have exclusively employed the active principle of cocculus indicus, picrotoxine, in the treatment of night sweating in phthisis and other diseases. My success with this substance has been so decided, so far superior to that previously obtained by the mineral acids, belladonna and ergot, singly and combined, that I can no longer postpone the public expression of my opinion concerning it.

My attention was first called to this use of the drug by a quotation from an article in the *Practitioner*, by Dr. William Murrell, who, after extended trial, found it the best substance he had ever employed for night sweating. The dose used by Murrell was from gr. $\frac{1}{120}$ to gr. $\frac{1}{60}$; the latter amount, four times a day, being the largest dose administered by him. My custom has been to give a pill containing gr. $\frac{1}{60}$ at bedtime, which dose may be repeated once or twice during the day in obstinate cases, and, at my suggestion, the firm of McKesson and Robbins, of New York, have added such a pill to their list.

As above intimated, I have not employed this drug solely in the night sweats of phthisis. I recall a case of chronic pleurisy in which, the effusion having been absorbed, convalescence was unaccountably retarded and prostration was so extreme that a latent, incipient phthisis was suspected. The skin was bathed in perspiration during the greater portion of the twenty-four hours, and this being the only discoverable morbid condition, I resolved to treat it with picrotoxine. It was promptly checked and convalescence set in immediately.

I have employed the drug in nearly one hundred cases.

Philadelphia. FREDERICK P. HENRY, M.D.

Ophthalmia.

ED. MED. AND SURG. REPORTER:—

I desire to communicate to the profession, through the medium of your most worthy periodical, a simple, but effective mode of treating scrofulous conjunctivitis. The patient, a lady, Mrs. C., age 23, the mother of one child, of scrofulous diathesis and nervo-sanguine temperament. She had been subjected to repeated attacks of violent sore eyes; in fact, her eyes have not been perfectly well in ten years until quite recently, though her general health has been excellent. The present attack began about the first of April, 1881, and continued almost to complete blindness, until November 25th, 1881, when I began treatment by directing strict dietetic and hygienic regime. They had essayed every available remedy without benefit, and had concluded that she was doomed to eternal darkness. I administered the following simple receipt, per orem:—.

℞. Pot. iodidi, ʒ ss
Syr. sarsar. co., ʒ viij
Tinct. cincho. co., ʒ ij
Aqua pluvialis, q.s. ad ℥j. M.
Cap. coch. mag. ter. die.

I ordered the following collyrium to be applied to the eyelids, twice daily:—

℞. Zinci. sulph., gr. v
Aqua pura., ʒ j.
Ft. sol.
Use as directed.

The above was the entire therapeutics of the case, which improved rapidly, ab initio, and she is now, December 25th, 1881, perfectly well, and can see as well as she could before the first attack.

Although an isolated case does not constitute a substantial criterion, I am confident that the above was not a mere recovery, but an absolute cure.

A. M. HATHCOCK, M.D.

Hickory Valley, Ark.

Multiple Births.

ED. MED. AND SURG. REPORTER:—

The papers seem to be somewhat excited over the fact that a Mrs. Casey, of New York, has given birth to three boys. Well, this is all well enough, for such cases are not common, and boys are rather scarce; but this is not by any means the first case of the kind. I know of a case that I have often thought ought to be reported, but so far as I can learn, it has never yet been reported.

A Mrs. Howitt, of Drumore Township, Lancaster Co., Penna., gave birth to three healthy boys—the three weighing, according to my recollection, twenty one pounds—in May or June of the year 1856. When I visited that neighborhood in 1876, I made inquiry concerning the boys, and I was informed that they were all living and doing well. Triplets usually do not live many months, but these boys were twenty years old in 1876, and I have not heard of the death of any of them since. George T. Dare, M.D., was the accoucheur on that occasion. Dr. Dare resides in Oxford, Chester Co., Penna.

Some twelve or fourteen years since, a lady in Fayette, Howard Co., Mo., gave birth to four children, two boys, I believe, and two girls. Two of them died in two or three weeks, and so far as I have learned, the other two are living now.

Maryville Mo. JOSEPH B. MORRISON, M.D.

The Vaccination Question.

ED. MED. AND SURG. REPORTER:—

In the discussion on vaccination, in your journal, E. M. S., says: "I know that some persons are *temporarily insusceptible* to the effects of vaccine virus. As a proof of this, I wish to make the following statement: In the spring of 1881 I vaccinated a lady and myself, both from the same "ivory point;" (both of us had been vaccinated in childhood). She *did not* take; mine *did*, beautifully.

In December, 1881, there being a case of smallpox in the town, I concluded to vaccinate again. The lady was anxious to try the experiment, and I vaccinated, as on the former occasion, both from the same "point;" the result was, mine *did not* take, hers *did*. This shows conclusively that some change had taken place in the lady's system, after the operation of the spring of 1881, or the result in the autumn or winter of the same year would undoubtedly have been similar.

I have in my mind the case of a lady upon whom vaccination would never take, the operation having been performed many times. On one occasion the skin was opened and the virus inserted, without any effect whatever. This lady's brother has two children that I have vaccinated five times, each, without any good resulting. I would ask, can the insusceptibility be transmitted? THEO. A. WORRALL, M.D.

Northeast, Md.

NEWS AND MISCELLANY.

Official List of Changes of Stations and Duties of Medical Officers of the U. S. Marine Hospital Service, October 1st, 1881, to December 31st, 1881.

Hebersmith, Ernest, Surgeon. Relieved from duty at San Francisco, Cal., and placed on waiting orders, Nov. 7th, 1881. Relieved from waiting orders, Nov. 26th, 1881.

Vansant, John, Surgeon. Granted fourteen days' leave of absence, Oct. 18th, 1881. To proceed to San Francisco, Cal., and assume charge of the Service at that port, Nov. 8th, 1881.

Miller, T. W., Surgeon. Granted leave of absence for seven days, Oct. 6th, 1881.

Purviance, George, Surgeon. To proceed to Boston, Mass., and assume charge of the Service at that port, Nov. 8th, 1881.

Austin, H. W., Surgeon. To proceed to Galveston, Indianola, Corpus Christi, and Brownsville, Texas, as inspector, Oct. 17th, 1881.

Fisher, J. C., Passed Assistant Surgeon. To proceed to Yorktown, Va., as inspector, Oct. 14th, 1881. Detailed as member of Board for the Examination of Keepers and Crews of the Life Saving Service, Third District, Nov. 18th, 1881.

Goldsborough, C. B., Passed Assistant Surgeon. Detailed as member of Board for the Examination of Keepers and Crews of the Life Saving Service, Fifth and Sixth Districts, Nov. 2d, 1881.

O'Connor, F. J., Assistant Surgeon. Granted leave of absence for fifteen days, on account of sickness, Dec. 23d, 1881.

Guitéras, John, Assistant Surgeon. Granted leave of absence for ten days, Dec. 5th, 1881.

Benson, J. A., Assistant Surgeon. Granted leave of absence for twenty-one days, Dec. 7th, and 21st, 1881.

Banks, C. E., Assistant Surgeon. To assume temporary charge of the Service at San Francisco, Cal., until the arrival of Surgeon Vansant, Nov. 7th, 1881.

Carmichael, D. A., Assistant Surgeon. To proceed to Baltimore, Md., for temporary duty, Nov. 2d, 1881. To rejoin his station (New York), and thence proceed to Pittsburgh, Pa., and assume charge of the Service at that port, Nov. 18th, 1881.

Bennett, P. H., Assistant Surgeon. To proceed to Boston, Mass., for temporary duty, Oct. 21st, 1881.

Peckham, C. T., Assistant Surgeon. To report for temporary duty to Surgeon-in charge, Boston, Mass., Oct. 21st, 1881. To proceed to Vineyard Haven, Mass., for temporary duty, Nov. 4th, 1881. To rejoin his station (Boston), and thence proceed to New York, reporting for duty to Surgeon-in-charge, Nov. 9th, 1881.

Ames, R. P. M., Assistant Surgeon. To proceed to St. Louis, Mo., for temporary duty, Oct. 21st, 1881. To proceed to Evansville, Ind., for temporary duty, Dec. 24th, 1881.

Devan, S. C., Assistant Surgeon. To proceed to San Francisco, Cal., for temporary duty, Oct. 21st, 1881.

Urquhart, F. M., Assistant Surgeon. To report for temporary duty to Surgeon-in-charge, New York, N. Y., Oct. 21st, 1881.

APPOINTMENTS.

The following candidates, having passed the examination required by the Regulations, were appointed Assistant Surgeons by the Secretary of the Treasury, Oct. 20th, 1881:—

Philo H. Bennett, M.D., of New York.
Cyrus T. Peckham, M.D., of Massachusetts.
Robert P. M. Ames, M.D., of Pennsylvania.
Spencer C. Devan, M.D., of Missouri.
Francis M. Urquhart, M.D., of New York.

Philadelphia Centenarians.

The *Public Ledger* of this city keeps a record of persons of unusually advanced age who pass from among us. The following are its comments:—

The deaths of 13 centenarians were recorded in the *Ledger* during the year (4 more than in 1880); of these there were 10 women and 3 men, Annie Granleas, Kate Kelly, and Rachel Mahorn, aged 100; Mary Winn, 101; John Monaghan, Hugh Lynch, Mary Miller, and Sarah McKay, 102; Elizabeth Quin, 104; Daniel Webster, 105; Hester Reckless, 105; Margaret Gasaway, 106; Daffy Burton, 115. Six of these died during the first half of the year, and have heretofore been noticed. The others are Annie Granleas, widow of the late Thomas Granleas, who died suddenly, September 12, aged 100 years; she was buried from the residence of her grandson, William Rahlfing, on September 16; Mary Miller, who died November 14, at the residence of her son, John N. Miller, No. 1231 South Thirty-first street, aged 102 years. She is said to have boasted that she once cooked a breakfast for General Washington, but that is hardly likely, unless she learned cooking very young. Catharine Kelly died November 26, aged 100 years, at the residence of her daughter, 207 Diamond street. Mrs. Kelly was a native of county Derry, Ireland; she came to this country in 1853, and was the mother of eight children. Margaret Gasaway died on December 6, aged 106 years. She was a member of the Society of Friends, and came here from the Eastern Shore of Maryland, while she was quite young. Mary Winn died December, 23, aged nearly 101 years. She was a native of the old District of Northern Liberties, where she lived all her life, her husband, Jacob Winn, being one of the old-time night watchmen. She was the mother of ten children, the oldest survivor of whom is a daughter over 73 years old. Rachel Mahorn, widow of John Mahorn, died December 10, aged 100 years. She was born in Salem County, N. J. She left 3 children, 20 grandchildren, and 23 great-grandchildren. Daniel Webster, colored, died December 25, aged 105 years. He left 4 children, 13 grandchildren, and 13 great-grandchildren.

OBITUARY NOTICES.

PROF. JOHN W. DRAPER.

This eminent scientist died January 4th, in his seventy-first year. He was better known as a physicist than as a physician. He was born near Liverpool, England, but removed in early life to this country, and graduated in 1836, in the University of Pennsylvania, where he took the degree of M. D., with the rare distinction that his thesis was selected for publication by the medical faculty. A few weeks after his graduation he was appointed Professor of Chemistry, Natural Philosophy and Physiology, in the Hampden-Sidney College, Virginia. During his residence there he was much occupied with scientific investigations, many of his physiological discoveries being communicated to *The American Journal of Medical Science*. In 1839 he was called to the chair of Chemistry and Natural History in the academic department of the University of the city of New York, where, besides instruction in those branches, he delivered lectures to the advanced under graduates on physiology. In 1841 he was appointed Professor of Chemistry in the University Medical College, and in 1850 physiology was added to the chair of chemistry. Dr. Draper was long president both of the scientific and medical departments of the University.

He was the author of many literary works, reviews, etc.; a Treatise on the Forces which Produce the Organization of Plants (1844); a Textbook on Chemistry (1846); and another on Natural Philosophy (1847), which consists of excerpts from his courses of lectures; and of a treatise on Human Physiology (1856), many editions of which have been published. His "History of the Intellectual Development of Europe" appeared in 1852, and was almost immediately afterward republished in England and translated into French, German, Italian, Polish and Russian. It has always been an extremely popular work, and has gone through many editions in this country. In 1865, four lectures which he had delivered before the New York Historical Society were collected in a volume, under the title of "Thoughts on the Future Civil Policy of America;" and between 1867 and 1870 appeared, in three volumes, his "History of the American Civil War."

In some respects his most important work was "The Conflict between Science and Religion," which attracted great attention, it may be literally said, all over the world, and was translated into all the principal languages. It is the claim of Dr. Draper's friends that he is more widely read and appreciated than any other American scientist. Prof. Tyndall, in his famous address before the British Association at Belfast, quoted largely from Dr. Draper's works, and the kindly feeling between these two eminent men was great. Dr. Draper's last work was "Scientific Memoirs," published in 1878, containing a narrative of an extensive series of experiments made in the University of New York by its author, on various chemical and physical topics, between 1830 and 1870, chiefly in connection with light, radiant heat, and electricity.

—Dr. Edward Reynolds, the oldest physician in Boston, died, December 27th, at the age of 89 years. He was graduated from Harvard College in 1811, and was a classmate of the late Edward Everett, the late Chief Justice Dunkin, of South Carolina, and the late Chief Justice Lane, of Ohio.

MARRIAGES.

CRAWFORD—BARCLAY.—December 22d, 1881, at the home of the bride, by Rev. W. W. Moorhead, Dr. J. Shoenberger Crawford and Miss Isabella J., daughter of the late Th. J. Barclay, of Greensburg, Pa.

DEATHS.

DRAPER.—At his residence, at Hastings-on Hudson, on Wednesday, January 4th, 1882, John W. Draper, M.D., LL.D., in the 71st year of his age.

STONG.—On Wednesday evening December 28th, 1881, Philip Stong, M. D., in the 39th year of his age.